

# TEXAS FORENSIC SCIENCE COMMISSION

*Justice Through Science*

FINAL REPORT ON COMPLAINT BY  
THE HARRIS COUNTY CRIMINAL  
LAWYER'S ASSOCIATION AGAINST  
THE HARRIS COUNTY INSTITUTE OF  
FORENSIC SCIENCES AND  
FESSESSEWORK GUALE

February 2, 2018



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## **I. SUMMARY OF THE COMMISSION’S STATUTORY AUTHORITY**

### **A. Legislative Background and Membership**

The Texas Legislature created the Texas Forensic Science Commission (“Commission”) during the 79<sup>th</sup> Legislative Session by passing House Bill 1068 (the “Act”). The Act amended the Texas Code of Criminal Procedure to add Article 38.01, which describes the composition and authority of the Commission.<sup>1</sup> During subsequent Legislative Sessions, the Legislature further amended the Code of Criminal Procedure to clarify and expand the Commission’s jurisdictional responsibilities and authority.<sup>2</sup>

The Commission has nine members appointed by the Governor of Texas.<sup>3</sup> Seven of the nine commissioners are scientists or medical doctors and two are attorneys (one prosecutor nominated by the Texas District and County Attorney’s Association, and one criminal defense attorney nominated by the Texas Criminal Defense Lawyer’s Association).<sup>4</sup> The Commission’s Presiding Officer is Jeffrey Barnard, MD. Dr. Barnard is the director of the Southwestern Institute of Forensic Science and the Chief Medical Examiner of Dallas County, Texas.<sup>5</sup>

### **B. Accreditation Jurisdiction**

Texas law prohibits forensic analysis from being admitted in criminal cases if the entity conducting the analysis is not accredited by the Commission:<sup>6</sup>

“...a forensic analysis of physical evidence under this article and expert testimony relating to the evidence are not admissible in a criminal action if, at the time of

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<sup>1</sup> See Act of May 30, 2005, 79<sup>th</sup> Leg., R.S., ch. 1224, § 1, 2005.

<sup>2</sup> See e.g., Acts 2013, 83<sup>rd</sup> Leg., ch. 782 (S.B.1238), §§ 1 to 4, eff. June 14, 2013; Acts 2015, 84<sup>th</sup> Leg., ch. 1276 (S.B.1287), §§ 1 to 7, eff. September 1, 2015, (except TEX. CODE CRIM. PROC. art. 38.01 § 4-a(b) which takes effect January 1, 2019).

<sup>3</sup> *Id.* at art. 38.01 § 3.

<sup>4</sup> *Id.*

<sup>5</sup> *Id.* at § 3(c).

<sup>6</sup> Until the 84<sup>th</sup> Legislative Session, the accreditation program was under the authority of the Department of Public Safety (“DPS”).



the analysis, the crime laboratory conducting the analysis was not accredited by the commission under Article 38.01.”<sup>7</sup>

The term “forensic analysis” is defined as follows:

“Forensic analysis” means a medical, chemical, toxicologic, ballistic, or other expert examination or test performed on physical evidence, including DNA evidence, for the purpose of determining the connection of the evidence to a criminal action, except that the term does not include the portion of an autopsy conducted by a medical examiner or other forensic pathologist who is a licensed physician.<sup>8</sup>

The term “crime laboratory” is broadly defined, as follows:

“Crime laboratory” includes a public or private laboratory or other entity that conducts a forensic analysis subject to this article.<sup>9</sup>

Texas law exempts certain forensic disciplines from the accreditation requirement by statute or administrative rule.<sup>10</sup> The complaint and related disclosures in this case involve toxicology, a forensic discipline subject to accreditation under Texas law. The Harris County Institute of Forensic Sciences (“HCIFS”), which is the laboratory that is the subject of this complaint and self-disclosure, is accredited by the ANSI-ASQ National Accreditation Board (“ANAB”) under the International Organization for Standardization (“ISO”) accreditation standard 17025.

### **C. Investigative Jurisdiction**

Texas law requires the Commission to “investigate, in a timely manner, any allegation of professional negligence or professional misconduct that would substantially affect the integrity of the results of a forensic analysis conducted by an accredited laboratory, facility or entity.”<sup>11</sup> The Act also requires the Commission to: (1) implement

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<sup>7</sup> TEX. CODE CRIM. PROC. § 38.35(a)(4).

<sup>8</sup> *Id.* at 38.35 § (a)(4).

<sup>9</sup> *Id.* at § 38.35(d)(1).

<sup>10</sup> *Id.* at 38.01 § 4-d(c).

<sup>11</sup> TEX. CODE CRIM. PROC. art. 38.01 § 4(a)(2).

a reporting system through which accredited laboratories, facilities or entities may report professional negligence or professional misconduct; *and* (2) require all laboratories, facilities or entities that conduct forensic analyses to report professional negligence or misconduct to the Commission.<sup>12</sup>

## **II. INVESTIGATIVE PROCESS**

### **A. Complaint and Disclosure Process**

When the Commission receives a complaint or self-disclosure, the Complaint and Disclosure Screening Committee conducts an initial review of the document at a publicly noticed meeting. (*See* Policies and Procedures at 3.0). After discussing the complaint or disclosure, the Committee votes to recommend to the full Commission whether the issues presented in the complaint or disclosure merit any further action. *Id.*

In this case, the Commission received the following: a complaint from the Harris County Criminal Lawyer's Association (“HCCLA”) (**Exhibit A**); a self-disclosure from the Harris County Institute of Forensic Sciences (**Exhibit B**); and a letter request from the Harris County District Attorney’s Office (“HCDAO”) seeking the Commission assistance with reviewing the issues raised in the HCCLA complaint and HCIFS self-disclosure (**Exhibit C**).

On October 5, 2016, the Commission discussed the complaint at its publicly noticed quarterly meeting in Austin, Texas. After deliberation, the Commission voted unanimously to create a 3-member investigative panel to review the disclosure pursuant to Section 3.0(b)(2) of the Policies and Procedures. Members voted to elect Dr. Sarah Kerrigan, Dr. Jasmine Drake and Mr. Mark Daniel as members of the panel, with Dr. Kerrigan serving as Chairperson.

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<sup>12</sup> *Id.* at § 3.



Once a panel is created, the Commission's investigation includes: (1) document and data review; (2) interviews with members of the laboratory as necessary to assess the facts and issues raised; (3) collaboration with the laboratory's accrediting body and any other relevant investigative agency; (4) requests for follow-up information where necessary; (5) hiring of subject matter experts where necessary; and (6) any other steps needed to meet the Commission's statutory obligations.

In the course of investigating this matter, Commission staff spoke the following individuals at HCIFS: Dr. Teresa Gray (Chief Toxicologist); Dr. Warren Samms (Director of Chemistry and Toxicology); Dr. Roger Kahn (Laboratory Director); and Ms. Michal Pierce (Quality Director). Commission staff also spoke with former HCIFS Laboratory Director Ashraf Mozayani. Staff attempted to speak with Dr. Fessessework Guale but received no response from Dr. Guale's attorney. The Commission has no authority to subpoena individuals or otherwise compel them to speak with staff or members. Staff consulted with the HCCLA and HCDAO at various points during the review process. Staff also reviewed extensive documents submitted by HCIFS and the HCCLA.

### **B. Components of Commission Reports**

Under Section 38.01 of the Texas Code of Criminal Procedure, a Commission investigation of an accredited crime laboratory and an accredited forensic discipline must include the preparation of a written report that "identifies and also describes the methods and procedures used to identify": (A) the alleged negligence or misconduct; (B) whether the negligence or misconduct occurred; (C) any corrective action required of the laboratory, facility, or entity; (D) observations of the Commission regarding the integrity

and reliability of the forensic analysis conducted; (E) best practices identified by the Commission during the course of the investigation; and (F) other recommendations that are relevant, as determined by the Commission. TEX. CODE CRIM. PROC. § 38.01, Sec. 4(b)(1).

In addition, the investigation may include one or more: (A) retrospective reexaminations of other forensic analyses conducted by the laboratory, facility, or entity that may involve the same kind of negligence or misconduct; and (B) follow-up evaluations of the laboratory, facility, or entity to review: (i) the implementation of any corrective action required . . . ; or (ii) the conclusion of any retrospective reexamination under paragraph (A). *Id.* at Sec. 4(b)(2).

### **C. Limitations on the Commission's Authority**

The Commission's authority contains important statutory limitations. For example, no finding contained herein constitutes a comment upon the guilt or innocence of any individual. TEX. CODE CRIM. PROC. 38.01 at § 4(g); Policies and Procedures at § 4.0(d). In addition, the Commission's written reports are not admissible in a civil or criminal action. (*Id.* at § 11; *Id.* at § 4.0(d).)

The Commission also does not have the authority to issue fines or other administrative penalties against any individual or laboratory. The information it receives during the course of any investigation is dependent upon the willingness of the forensic laboratory or other entity under investigation and other concerned parties to submit relevant documents and respond to questions posed. The information gathered has **not** been subjected to the standards for admission of evidence in a courtroom. For example, during on-site and telephone interviews, no individual testified under oath, was limited by



either the Texas or Federal Rules of Evidence (*e.g.*, against the admission of hearsay) or was subjected to formal cross-examination under the supervision of a judge.

Moreover, documents obtained during the course of interviews have not been subject to any independent validation. For example, if the Commission receives an email from a laboratory or individual, and the email indicates it was sent on a given date at a given time, the Commission assumes this information is accurate and has not been altered. The Commission requests information from the laboratory and other concerned parties based on its understanding of the facts as presented in the complaint or self-disclosure and relies on the parties to provide supplemental information if they believe such information will shed light on the Commission's review of a given complaint or self-disclosure. Because the Commission has no authority to subpoena documents, it relies on the parties' willingness to cooperate with the investigation.

### **III. SUMMARY OF COMPLAINT**

On September 8, 2016, the HCCLA submitted a complaint to the Commission requesting investigation of the following (**Exhibit A**):

1. Dr. Guale's qualifications to be testifying as an expert witness;
2. Misrepresentations on Guale's Statement of Qualifications regarding her credentials;
3. Validity of Guale's American Board of Forensic Toxicology (ABFT) certification;
4. Guale's "perjured testimony" in court;
5. Inconsistent testimony regarding headspace gas chromatography data;
6. "Junk science" testimony regarding retrograde extrapolation; and
7. HCIFS' "failure to issue a CAR" for the misrepresentations and related allegations.

### **A. Analysis of Professional Negligence and Misconduct**

Article 38.01 of the Texas Code of Criminal Procedures requires the Commission to describe whether professional negligence or misconduct occurred in this case. Neither “professional negligence” nor “professional misconduct” is defined in the statute. The Commission has defined both terms in its policies and procedures. (Policies and Procedures at 1.2.)<sup>13</sup>

At its November 3, 2017 meeting, the Commission unanimously voted to issue a finding of professional negligence against Guale. The term “professional negligence” is defined in Section 1.2 of the Commission’s Policies and Procedures as follows:

“Professional Negligence” means the actor, through a material act or omission, negligently failed to follow the standard of practice generally accepted at the time of the forensic analysis that an ordinary forensic professional or entity would have exercised, and the negligent act or omission would substantially affect the integrity of the results of a forensic analysis. An act or omission was negligent if the actor should have been but was not aware of an accepted standard of practice required for a forensic analysis. (Policies and Procedures at 1.2)

### **B. Professional Negligence vs. Professional Misconduct**

The Commission finds Guale was professionally negligent in failing to convey that her degree was a Master's degree in Physiological Sciences with coursework in Toxicology, as opposed to a Master's degree in Toxicology. In addition, the Commission finds Guale was professionally negligent in providing confusing and inconsistent explanations of technical and scientific concepts during testimony, especially with respect to retrograde extrapolation (*See Exhibits E-F*). Because the Commission was unable to speak with Guale, and the only public statements available are media interviews, it was not possible for the Commission to assess Guale's intent sufficient to

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<sup>13</sup> The Commission's policies and procedures have been developed into administrative rules and will ultimately be published in 37 TEX. ADMIN. CODE §15.



issue a finding of professional misconduct. HCIFS concluded that Guale did not appreciate the consequences of her inaccurate testimony for the laboratory or the criminal justice system.

The term "professional misconduct" is defined in the Commission's policies and procedures as follows:

“Professional Misconduct” means the actor, through a material act or omission, deliberately failed to follow the standard of practice generally accepted at the time of the forensic analysis that an ordinary forensic professional or entity would have exercised, and the deliberate act or omission would substantially affect the integrity of the results of a forensic analysis. An act or omission was deliberate if the actor was aware of and consciously disregarded an accepted standard of practice required for a forensic analysis. (Policies and Procedures at 1.2)

This definition requires the Commission to establish a deliberate (i.e., intentional) act or omission, which the Commission was unable to do given the fact that Guale resigned from the laboratory in September 2016, before the complaint and laboratory self-disclosure were filed.

### **C. Dr. Guale's Qualifications and Misstatements on SOQ**

At the time this complaint was filed, Guale was the Toxicology Analytical Operations Manager for HCIFS. During the criminal trial of a case for which Guale was a State's expert, Guale had difficulty explaining her qualifications. This resulted in a Harris County Assistant District Attorney ("ADA") expressing concern to HCIFS management. When management reviewed the testimony with the ADA, they discovered Guale misstated the title of her Master of Science degree. She stated she had a Master's Degree in Toxicology from Oklahoma State University when in fact she had a Master's Degree in Physiological Sciences with coursework in toxicology.

<sup>14</sup>The degree listed on Guale's transcript and diploma (Master's in Physiological Sciences) did not match what was written on her job application, CV, or SOQ (Master's in Toxicology). Assuming Guale submitted her diploma when she was hired, it was not effectively compared to her application form, CV or SOQ.

Testimony by Toxicology staff, particularly managers, were historically evaluated primarily by attorneys, not laboratory staff with technical expertise. Earlier monitoring may have caught the misrepresentation on the stand but only if the monitor was aware of Guale's degree as stated in her diploma. The lab concluded Guale's misstatement on the stand constituted violations of two applicable codes of ethics:

- The ASCLD/LAB Guiding Principles of Professional Responsibility for Crime Laboratories and Forensic Sciences requires that a forensic expert "accurately represent his/her education, training, experience, and area of expertise."
- The American Board of Forensic Toxicology expects all certificate holders to follow the ABFT Code of Ethics, among which is the requirement to "Perform all professional activities in Forensic Toxicology with honesty and integrity, and refrain from any knowing misrepresentation of their professional qualifications, knowledge and competence, evidence and results of examinations, or other material facts."

At the Commission's November quarterly meeting, laboratory management noted that at the time Guale was hired it was not common practice to compare the degree listed on an applicant's diploma with the degree listed on the submitted application and CV. The laboratory has since changed its process for credential review as discussed below.

During the root cause analysis and corrective action process, HCIFS noted that Guale met the criteria for her initial and ultimate job descriptions and was qualified to

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<sup>14</sup> The laboratory is unable to verify whether Guale's diploma was submitted when she was hired or at a later point during her employment.

perform her required duties with the Master's degree in Physiological Sciences. There was no need for her to misrepresent credentials to gain employment or a promotion.

#### **D. Validity of ABFT Certification**

HCIFS contacted the American Board of Forensic Toxicology ("ABFT") to disclose the issues set forth herein because ABFT is an accrediting body for HCIFS. HCIFS management also reviewed the certification qualification rules and determined that Guale's certification status would not have been impacted had she accurately represented her degree as a Master's in Physiological Sciences as opposed to a Master's in Toxicology.

#### **E. Guale's "Perjured Testimony" re: Qualifications**

The Commission does not have jurisdictional authority to assess whether Dr. Guale perjured herself during testimony. The HCDAO is responsible for investigating allegations of criminal activity. The Commission's understanding in speaking with the HCDAO is that the matter was brought before a grand jury but it returned a no bill.

#### **F. Substantive Concerns re: Scientific Testimony**

HCIFS performed two reviews of all Guale trial transcripts provided by the Harris County DA's office. The first review was performed in May 2017 and the second in July 2017. A total of 32 transcripts were reviewed. The transcripts were reviewed for the purpose of flagging substantive technical issues in testimony.

One of the technical areas of greatest concern in Guale's testimony was retrograde extrapolation.<sup>15</sup> *Mata vs. State of Texas* holds an expert witness to a high standard when

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<sup>15</sup> HCCLA also complained about inconsistent testimony regarding headspace gas chromatography data. After reviewing the transcript excerpts and speaking with the laboratory, the panel concluded these concerns had reasonable explanations while the other substantive issues discussed herein did not.

testifying to retrograde extrapolation.<sup>16</sup> The Commission concurs with HCIFS' observation that Guale's testimony was at times unclear, contradictory or without sufficient explanation, problems that *Mata* cautions against. The Commission also concurs with HCIFS' statement that "ascertaining whether Dr. Guale possessed sufficient knowledge of forensic toxicology principles and their proper application to testimony was difficult from the reviewed transcripts because her testimony lacked detail and clarifying explanations."

Guale's responses clearly demonstrated that she relied on the BACTracker software for extrapolation-related calculations, and she was unable to convince the court that she appropriately understood the underlying ethanol pharmacokinetics upon which the software is based. This demonstrates the danger of relying too heavily on software programs, as such reliance can obscure an in-depth understanding of key foundational concepts.

During second transcript review in July 2017, HCIFS again observed that Guale provided unclear and contradictory testimony regarding extrapolation and absorptive state. For example, in *Lengua* and *Sechrist*, she described the time of first and last drink as the "most important" or "most crucial" variables for extrapolation, but in *Arnold*, *Lengua*, *Ronald Rodriguez* and *Ulloa*, she said such information was not necessary.

In at least five cases reviewed (*Cisneros*, *Lengua*, *K. Nguyen*, *Richardson*, and *Ronald Rodriguez*), Guale provided extrapolation testimony without having any information about the drinking history. In various transcripts, she voluntarily testified to or agreed with an attorney's representation of inaccurate information. Again, it is difficult

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<sup>16</sup> *Mata v. State*, 13 S.W.3d 1 (Tex. App.-San Antonio 1999), rev'd, 46 S.W.3d 902 (Tex. Crim. App. 2001).



to determine whether these are attributable to her imprecise communication or an actual lack of knowledge in the subject area. In *Johnson-Cervera* and *Ronald Rodriguez*, she testified that side effects for alprazolam and tramadol, respectively, are present only when the drug is not used as prescribed. This is another example of inappropriate testimony regarding key concepts in toxicology.

In sum, the concerns raised by the HCCLA regarding retrograde extrapolation testimony and related concepts were substantiated by the review of Guale's transcripts. Due to the unreliable nature of Guale's testimony regarding key scientific concepts, any case in which she provided testimony should be reviewed by the HCDAO and defense representatives to assess the materiality of the testimony to the case outcome and determine whether any legal relief is appropriate. This is especially critical for those cases in which the resulting BAC was on the border of the statutorily defined legal limit.

#### **G. HCIFS' Alleged Failure to Take Corrective Action**

HCIFS has taken extensive corrective action including thorough root cause mapping (*See Exhibit D*). Additionally, the laboratory has a new laboratory director and new Chief Toxicologist. The following are preventative changes that were implemented after the problems with Guale's testimony were discovered:

- Lab policy was changed to require supporting records to be submitted with every SOQ and CV revision.
- Management re-emphasized existing IFS testimony monitoring policy to stress the importance of managers receiving direct testimony observation by IFS personnel.
- Management initiated further ethics discussions with the staff to ensure all understood the severity and ramifications of misrepresenting credentials.
- All SOQs and CVs have been updated with supporting records.

- All toxicology analysts who testify were individually assessed by new Chief Toxicologist to ensure competency.
- Management implemented more rigorous courtroom testimony training.

Though the corrective action and supporting documentation may not have yet been disclosed to the complainant at the time this complaint was filed, the Commission finds the laboratory has since performed a thorough assessment of the relevant transcripts and taken appropriate corrective action to protect against recurrence of the issues identified herein.

#### **IV. CLOSING OBSERVATIONS/RECOMMENDATIONS**

Though current HCIFS laboratory management was not responsible for the failure of HCIFS to vet Guale's qualifications, there was insufficient attention to detail during the candidate vetting process which could have prevented the problems described herein. It also demonstrates the critical importance of rigorous testimony training and monitoring by experts who are qualified to evaluate not only courtroom demeanor, but also the appropriateness and validity of the scientific concepts expressed. Testimony evaluation by legal representatives is simply insufficient to flag the types of substantive technical concerns described in this report. The risk of leaving testimony monitoring to attorneys must be appreciated not only by HCIFS as a result of this complaint and self-disclosure, but also by all other Texas laboratories whose staff testify in Texas criminal courts.



# HARRIS COUNTY CRIMINAL LAWYERS ASSOCIATION

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September 8, 2016

Kathryn Adams  
Commission Coordinator  
Texas Forensic Science Commission  
1700 North Congress, Ste. 445  
Austin, TX 78701

RE: Harris County Institute of Forensic Science Employee Fessesswork  
Guale

Enclosed, please find a complaint being filed against Fessesswork Guale by the Harris County Criminal Lawyers Association. We are requesting an investigation into:

1. Guale's qualifications to be testifying as an expert witness in trial,
2. Her misrepresentations on her Statement of Qualifications that is required for lab accreditation,
3. The validity of her American Board of Forensic Toxicologists certification based on these misrepresentations about her education,
4. Her perjured testimony in court,
5. Her inconsistent testimony regarding Headspace Gas Chromatography data in court,
6. Her "junk science" testimony in court regarding retrograde extrapolation without adequate scientific authority for her opinions,zx
7. HIFS' failure to file any Corrective Action Preventative Action reports for this incident or anything else.

Supporting exhibits regarding these allegations are attached.

Thank you for your time investigating this matter. I can be reached at [office@tylerflood.com](mailto:office@tylerflood.com) or by calling 713.224.5529.

Tyler Flood

President, HCCLA

# TEXAS FORENSIC SCIENCE COMMISSION • COMPLAINT FORM (Cont.)

## 1. PERSON COMPLETING THIS FORM

Name: Harris County Criminal Lawyers Association  
 Address: P.O. Box 924523  
 City: Houston  
 State: Texas Zip Code: 77292-4523  
 Home Phone: \_\_\_\_\_  
 Work Phone: (713) 227-2404  
 Email Address (if any): tyler@tylerflood.com

## 2. SUBJECT OF COMPLAINT

List the full name, address of the laboratory, facility or individual that is the subject of this disclosure:

Individual/Laboratory: F. Gualle - Harris County Institute of Forensic Sciences  
 Address: 1885 Old Spanish Trail  
 City: Houston  
 State: Texas Zip Code: 77054  
 Date of Examination, Analysis, or Report: Numerous Cases  
 Type of forensic analysis: Toxicology  
 Laboratory Case Number (if known): Numerous Cases

Is the forensic analysis associated with any law enforcement investigation, prosecution or criminal litigation?  
 Yes ☒ No ☐

\* If you answered "Yes" above, provide the following information (if possible):

\* Name of Defendant: Numerous Cases Effected

\* Case Number/Cause Number:  
 (if unknown, leave blank)

\* Nature of Case:  
 (e.g. burglary, murder, etc.)

\* The county where case was investigated, prosecuted or filed:

\* The Court:

\* The Outcome of Case:

\* Names of attorneys in case on both sides (if known):

Your relationship with the defendant:

Self ☐ Family Member ☐  
 Parent ☐ Friend Attorney ☐  
 None ☐ Other (please specify): \_\_\_\_\_

HCCLA members have represented hundreds of defendants that may be effected by Dr. Gualle's misconduct.

If you are not the defendant, please provide us with the following information regarding the defendant:

Name: Hundreds of defendants charged with offenses in Harris County

Address (if known): \_\_\_\_\_

Home Phone: \_\_\_\_\_

Work Phone: \_\_\_\_\_

## 3. WITNESSES

Provide the following about any person with factual knowledge or expertise regarding the facts of the disclosure. Attach separate sheet(s), if necessary.

First Witness (if any):

Name: Tyler Flood

Address: 1229 Heights Blvd., Houston, Texas 77008

Daytime Phone: (713) 224-5529

Evening Phone: (713) 480-5529

Fax: (713) 224-5533

Email Address: tyler@tylerflood.com

Second Witness (if any):

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Daytime Phone: \_\_\_\_\_

Evening Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

Email Address: \_\_\_\_\_

Third Witness (if any):

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Daytime Phone: \_\_\_\_\_

Evening Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

Email Address: \_\_\_\_\_





**5. EXHIBITS AND ATTACHMENT(S)**

Whenever possible, disclosures should be accompanied by readable copies (**NO ORIGINALS**) of any laboratory reports, relevant witness testimony, affidavits of experts about the forensic analysis, or other documents related to your disclosure. Please list and attach any documents that might assist the Commission in evaluating the complaint. Documents provided will **NOT** be returned. List of attachments:

Exhibit #1: Notice from the Harris County District Attorney's Office regarding Fessessework Guale.

Exhibit #2: Fessessework Guale's Curriculum Vitae

Exhibit #3: Fessessework Guale's ASCLAD/LAB - International Statement of Qualifications

Exhibit #4: Various court transcripts of Fessessework Guale's testimony

Exhibit #5: Chromatograms related to issues with HCIFS calibration curves

Exhibit #6: New articles related to Fessessework Guale

**6. YOUR SIGNATURE AND VERIFICATION**

By signing below, I certify that the statements made by me in this disclosure are true. I also certify that any documents or exhibits attached are true and correct copies, to the best of my knowledge.

Signature: \_\_\_\_\_

Date Signed: **2016-09-08**

# EXHIBIT #1

Belinda Hill  
First Assistant



Criminal Justice Center  
1201 Franklin, Suite 600  
Houston, Texas 77002-1901

**HARRIS COUNTY DISTRICT ATTORNEY**  
DEVON ANDERSON

September 6, 2016

**\*\*NOTICE CONCERNING EXPERT WITNESS  
DR. FESSESSEWORK GUALE\*\***

The Harris County District Attorney's Office was informed today that Dr. Fessessework Guale of the Harris County Institute of Forensic Sciences may have testified in past trials that she received her Master's of Science degree in Toxicology when, in fact, she received her Master's of Science degree in Physiological Sciences (with coursework and research in toxicology).

Please disseminate this information to your membership and/or employees for their review.

The District Attorney's Office will facilitate specific requests for review of Dr. Guale's trial testimony in Harris County prosecutions from 2006 to present. All requests should include the cause number and court in which the case was tried. Requests may be submitted in writing to me at [Chandler\\_Inger@dao.hctx.net](mailto:Chandler_Inger@dao.hctx.net).

Sincerely,

Inger Chandler  
Assistant District Attorney  
Harris County, Texas



# **EXHIBIT #2**

## Curriculum Vitae

***Fessessework Guale. DVM, MS, D-ABVT, D-ABFT-FT***

Harris County Institute of Forensic Sciences

1885 Old Spanish Trail

Houston, TX 77054

Phone: 713-796-6908

Fax: 713-796-6838

[Fessessework.guale@ifs.hctx.net](mailto:Fessessework.guale@ifs.hctx.net)

## Education

1993-1996: Oklahoma State University, Stillwater, OK

- **MS:** Toxicology, Physiological Sciences, College of Veterinary Medicine
- **Thesis:** Evaluation of Chick Embryo Motoneurone Cultures for the Study of Neurotoxicity. Published in 1997.

1985-1990: Addis Ababa University, Ethiopia

- **DVM:** College of Veterinary Medicine
- **Thesis:** Prevalence of Coccidiosis and Identification of *Eimeria* Species

1981-1983: Addis Ababa University, Ethiopia

- **BS:** Animal Science, College of Agriculture

## Professional Experience

**May 2013-present: Toxicology Analytical Operations Manager:** Harris County Institute of Forensic Sciences

- Manage the daily operation of the Laboratory
- Perform technical, administrative and expert review of completed cases
- Provide consultations and toxicological interpretations to pathologists and law enforcement personnel
- Provide expert testimony in court
- Oversee the QA/QC operation of the laboratory
- Oversee the training and continuing education of staff members
- Hire subordinate staff
- Prepare annual budget for the laboratory
- Perform yearly performance evaluation of toxicology laboratory employees
- Prepare and present scientific articles

**May 2011-May 2013: Assistant Chief Toxicologist:** Harris County Institute of Forensic Sciences, Forensic Toxicology Section.

- Manage the daily operation of the toxicology laboratory
- Perform technical, administrative and expert review of completed cases
- Provide consultations and toxicological interpretations to pathologists and law enforcement personnel
- Provide expert testimony in court
- Plan and execute method development projects
- Prepare and present scientific articles
- Oversee the QA/QC operation of the laboratory
- Oversee the training and continuing education of staff members
- Hire subordinate staff
- Prepare annual budget for the laboratory
- Perform yearly performance evaluation of toxicology laboratory employees
- Prepare and present scientific articles

**June 2008- May 2011: Toxicologist I:** Harris County Institute of Forensic Sciences, Forensic Toxicology Section

- Manage and plan the daily operation of the toxicology laboratory
- Technical and administrative review completed cases
- Maintain laboratory compliance with quality control and quality assurance and accreditation by ABFT and ASCLAD/LAB.
- Provide expert witness in the court of law

**June 2006- June 2008: Toxicologist II Specialist:** Harris County Medical Examiners Office, Forensic Toxicology Section.

- **GC/MS Section Team Leader:** Provide leadership in all the activities of the section
- Technically review analytical data in the section
- Perform technical review and administrative review of completed cases
- Facilitate the completion of cases in a timely manner
- Responsible for troubleshooting instrument malfunctions and contact service technicians when necessary
- Review standard operating procedures, make necessary adjustments and/or changes to improve the efficiency of the analytical methods
- Assign team members daily duties
- Responsible for training and continuing education of team members
- Manages personnel issues in the section, including time sheets, time off requests, schedules, etc.
- Conduct the performance evaluation of team members

**2000-2006: Professional Research Associate/ Toxicologist.** Colorado State University Health Sciences Center, Forensic Toxicology Laboratory

- **Laboratory Manager:** Manage the day to day activity of the Forensic Toxicology laboratory
- Responsible for maintaining the laboratory's accreditation
- Organize the basic research activity in the laboratory
- Responsible for employee training and counseling
- Develop and validate new analytical methods
- Analyze, review and report analytical data
- Consult with law enforcement agencies, pathologists, and veterinarians on toxicology issues
- Provide expert testimony

**1991-2000; Analytical Toxicologist:** Oklahoma Animal Disease Diagnostic Laboratory, Oklahoma State University

- Analyze biological and environmental samples for drugs, pesticides, heavy metals, mycotoxins, feed additives, petroleum hydrocarbons, water pollutants and etc.
- Used, GC/MS, GC-FID, HPLC, AA, TLC, ELISA and bench chemistry
- Write and review standard operation procedures
- Analyze data, interpret and report results
- Consult with veterinarians and provide diagnostic service
- Perform research to improve and develop analytical methods
- Provide training to residents in analytical toxicology

## **Awards and Certificates**

**2007-Diplomate: American Board of Forensic Toxicology**

**1999-Diplomate: American Board of Veterinary Toxicology**

**1990-Academic Excellence Award;** College of Veterinary Medicine

**1981-Academic Excellence Award,** College of Agriculture

## **Publications**

Fessessework Guale, Shahriar Shahreza, Jeffrey P. Walterscheid, Hsin-Hung Chen, Crystal Arndt, Anna T. Kelly and Ashraf Mozayani: **Validation of LC-TOF-MS screening for drugs, metabolites and collateral compounds in Forensic Toxicology specimens.** Journal of Analytical Toxicology, Vol. 37. No. 1, 2013 pages 17-25.



K. Bischoff, F. Guale; **Australian Tea Tree ( *Melaleuca alternifolia*) oil poisoning in three purebred cats**. Journal of Veterinary Diagnostic Investigations, Volume 10, 1998 pages 208-210

Fessessework G. Guale, George E. Burrows: **Evaluation of Chick Embryo Motoneuron Cultures for the Study of Neurotoxicity**. Natural Toxins, Volume 5, Number 3, 1997, pages 115-120

FG. Guale, EL. Stairs, WB. Johnson, WC. Edwards, JC. Haliburton: **Laboratory Diagnosis of Zinc Phosphide Poisoning**. Veterinary and Human Toxicology, Volume 36, No. 6, December 1994, pages 517-519

Fessessework Guale, **Assessment of Rectal Temperature, Pulse, and Respiratory rates in Healthy Pack Donkeys**. Student Scientific Journal, April 1989, College of Veterinary Medicine, Addis Ababa University, Ethiopia

## **Presentations**

- **Applications of Fast GC-MS in the analysis of Opiates**. Poster presented on October 19, 2007 at Society of Forensic Toxicology Continuing Education Workshop, Raleigh-Durham, NC.
- **Clinical or Forensic Case-A Crossroad for Interpretation**: Presented to Toxicology staff, at the Harris County Medical Examiners Office, October 2007, Houston, TX
- **Pharmacokinetics and Interpretation of Cocaine**: Presented to Fellows and Pathology Residents of the Harris County Medical Examiners Office, September 2007, Houston, TX
- **Interpretive DUID**: Presented to Toxicology staff at Harris County Medical Examiners Office, June 2008, Houston, TX
- **Pharmacokinetics and Interpretation of Cocaine**: Presented to Fellows and pathology residents of the Harris County Medical Examiners Office, October 2008, Houston, TX
- **Interpretive DUID Workshop**: Workshop Coordinator, SOFT/AAFS Drugs and Driving Committee Seminar, May 12-13, 2009, Houston, Texas.
- **Pharmacokinetics and Interpretation of Cocaine**: Presented to Fellows and Pathology Residents of the Harris County Medical Examiners Office, December 2009, Houston, TX
- **Phencyclidine (PCP) in fatally injured drivers and DUID arrests in Harris County, Texas**. Presented at the American Academy of Forensic Sciences, annual scientific meeting, February 24, 2010, Seattle, WA.

- **Pharmacokinetics and Interpretation of Cocaine:** Presented to Fellows and Pathology Residents of the Harris County Medical Examiners Office, November 2010, Houston, TX
- **Drug Testing and Interpretation in Postmortem Toxicology:** Presented at Harris County Institute of Forensic Sciences: Topics in Forensic Sciences Conference, April 15, 2011, Houston, TX.
- **Proof of concept for a comprehensive method for rapid drug screening of whole blood with UHPLC accurate-mass TOF LC/MS.** Presented at the SOFT-TIAFT joint meeting on September 25-30, 2011, San Francisco, CA
- **Pharmacokinetics and Interpretation of Cocaine:** Presented to Fellows and Pathology Residents of the Harris County Institute of Forensic Sciences, November 2011, Houston, TX
- **Toxicology result of drivers of fatal motor vehicle accidents in Harris County, TX, 2011.** Presented at the American Academy of Forensic Sciences annual meeting, February 22, 2013, Washington DC.
- **Recent Trends of Designer Drugs in Harris County Texas:** Presented at the American Academy of Forensic Sciences annual meeting. February 21, 2014, Seattle, WA
- **Diclozepam: Lorazepam in Disguise.** Presented at the American Academy of Forensic Sciences annual meeting, February 26, 2016, Las Vegas, NV.

# **EXHIBIT #3**

**ASCLD/LAB-International**

**STATEMENT OF QUALIFICATIONS**

<b>Name</b>	Fessessework Guale	<b>Date</b>	10/08/13
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<b>Laboratory</b>	Toxicology
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<b>Job Title</b>	Toxicology Analytical Operations Manager
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Indicate all disciplines in which you do casework:

<input type="checkbox"/>	Drug Chemistry	<input checked="" type="checkbox"/>	Toxicology
<input type="checkbox"/>	Firearms/Toolmarks	<input type="checkbox"/>	Biology
<input type="checkbox"/>	Trace Evidence	<input type="checkbox"/>	Questioned Documents
<input type="checkbox"/>	Latent Prints	<input type="checkbox"/>	Crime Scene
<input type="checkbox"/>	Digital & Multimedia Evidence		

List all category(ies) of testing in which you do casework:

Human Performance and Post-Mortem Forensic Toxicology
---

**Breath Alcohol Calibration Categories**

<input type="checkbox"/>	<b>Toxicology</b> - Breath Alcohol Measuring Instruments (The work of the laboratory MUST include calibration certificates- do not check the box if work is limited to breath/alcohol testing)
<input type="checkbox"/>	<b>Toxicology</b> - Breath Alcohol Calibration Reference Material

**Education:** List all higher academic institutions attended (list high school only if no college degree has been attained)

Institution	Dates Attended	Major	Degree Completed
Oklahoma State University	1993-1996	Toxicology	MSc
Addis Ababa University	1985-1990	Veterinary Medicine	DVM
Addis Ababa University	1981-1983	Animal Science	Bsc

**Other Training:** List continuing education, workshops, in-service and other formal training received. Please include the course title, source and date of the training.

- 1:SOFT: Society of Forensic Toxicologists Workshop, October 15-19, 2007, Raleigh, NC
- 2:Interpretive DUID workshop: SOFT/AAFS Drug and Driving and Continuing Education Committee Seminar, May 6-8, 2008, West Palm Beach, FL
- 3:Opioids and Pain Management: RTI training, on-line course, June 2008, Houston, TX
- 4: Interpretive DUID workshop: SOFT/AAFS Drug and Driving and Continuing Education Committee Seminar, May 12-13, 2009, Houston TX
- 5:Traffic Fatality Investigation Seminar, November 2009, Houston, TX
- 6:ISO/IEC 17025 and Forensic Services Provider Accreditation Wotkshop: May 10-14 2010, Houston, TX
- 7:Confirmation Bias, Ethics, and Mistake in Forensics: Forensic Ethics Seminar, May 12, 2010, Houston, TX
8. Medicolegal death investigation Seminar, June 15, 2010
9. Alcohol extrapolation and the use of BAC tracker Software, August 19, 2010
10. Southwestern Association of Toxicologists, Fall 2010 meeting, September 16-18, 2010 Houston, TX
11. Scientific sessions at the American Academy of Forensic Sciences, 62<sup>nd</sup> Annual scientific meeting, February 24-25, 2010 Seattle, WA



12. Scientific sessions at SOFT-TIAFT conference September 21-23, 2011 San Fransisco, CA
13. Scientific sessions at the annual AAFS conference, Washington, DC, February 22-23, 2013

**Courtroom Experience:** List the discipline/category(ies) of testing in which you have qualified to testify as an expert witness and indicate over what period of time and approximately how many times you have testified in each.

DWI/DUID: 2/2004, 1/2009, 1/2010, 1/2011, 6/2012, 2/2013

**Professional Affiliations:** List any professional organizations of which you are or have been a member. Indicate any offices or other positions held and the date(s) of these activities.

Southwestern Association of Toxicologists  
California Association of Toxicologists  
American Board of Veterinary Toxicology

**Employment History:** List all scientific or technical positions held, particularly those related to forensic science. List current position first. Be sure to indicate employer and give a brief summary of principal duties and tenure in each position.

<b>Job Title</b>	Toxicology Analytical Operations Manager	<b>Tenure</b>	present
<b>Employer</b>	HCIFS		
Provide a brief description of principal duties:			
Provide leadership in the analytical operations of the toxicology laboratory, Responsible for the day to day activity of analysts and the work flow of cases			

<b>Job Title</b>	Assistant Chief Toxicologist	<b>Tenure</b>	2 years
<b>Employer</b>	HCIFS		
Provide a brief description of principal duties:			
Assist the Chief Toxicologist in the management of the laboratory			

<b>Job Title</b>	Toxicologist I	<b>Tenure</b>	2 years
<b>Employer</b>	HCIFS		
Provide a brief description of principal duties:			
Supervise the different sections of the toxicology laboratory			

Job Title	Toxicologist II Specialist	Tenure	2 years
Employer	HCIFS		
Provide a brief description of principal duties:			
GC/MS section team leader, perform data analysis, data review, technical and administrative review of cases			

<b>Job Title</b>	Research Associate	<b>Tenure</b>	5.7
<b>Employer</b>	University of Colorado Health Sciences Center		
Provide a brief description of principal duties:			
Assist the lead investigator in basic research, manage the day to day activity of the forensic toxicology laboratory			

**Other Qualifications:** List below any scientific publication and/or presentation you have authored or co-authored, research in which you are or have been involved, academic or other teaching positions you have held, and any other information which you consider relevant to your qualification as a forensic scientist.  
(Use additional sheets if necessary.)

#### PRESENTATIONS:

1. Toxicology Result of Drivers of Fatal Motor Vehicle Accidents in Harris County, Texas in 2011: AAFS Annual conference, Washington, DC, February 22, 2013
2. Proof of concept for a comprehensive method for rapid drug screening of whole blood with UHPLC Accurate-mass TOF LC/MS, presented at the SOFT-TIAFT conference on September 23, 2011, San

fransisco, CA.

3: Interpretation and Pharmacokinetics of Cocain: Presented to Pathology Fellows of HCIFS. December 2010

4: Phencyclidine (PCP) in Fataly Injured Drivers and DUID Arrests in Harris County, Texas : presented at the American Academy of Forensic Sciences, 62nd Annual Scientific Meeting, February 24, 2010, Seattle, WA

5: Interpretation and Pharmacokinetics of Cocaine: Presented to Pathology Fellows and Toxicology Staff of HCIFS, December 2009, Houston TX

6: Interpretive DUID: Presented to Toxicology Staff of HCIFS, July 2008, Houston, TX

7: Poster presentation on Fast opiate analysis by GC/MS, SOFT, October 15-19, 2007. Raleigh, NC

8: Clinical or Forensic Case: A Cross road to Interpretation: Presented to Toxicology Staff of HCIFS, November 2007, Houston, TX

9: Prevalence of Drugs of Abuse from DUID cases in Denver Colorado, 2003-2005. Presented to Toxicology Staff on May 8, 2006 at HCIFS.

#### PUBLICATIONS:

1. Validation of LC-TOF-MS screening for drugs, metabolites and collateral compounds in Forensic Toxicology specimens: Journal of Analytica Toxicology, Volume 37, number 1, 2013, pages 17-24

2: Australian tea tree oil poisoning in three purebred cats. Journal of Veterinary Diagnostic Investigation. Volume 10, 1998, pages 208-210

3: Evaluation of Chick Embryo Motoneuron Cultures for the study of Neurotoxicity. Natural toxins, Volume 5, number 3, 1997 pages 115-120

4: Laboratory Diagnosis of Zinc Phosphide Poisoning. Veterinary and Human Toxicology. Volume 36, number 6, 1994, pages 517-519

#### CERTIFICATES:

1: Diplomat: American Board of Veterinary Toxicology

2: Forensic Toxicology Specialist : ABFT

## REPORTER'S RECORD

TRIAL COURT CAUSE NO. 1996292

THE STATE OF TEXAS       \*   IN   THE COUNTY CRIMINAL  
                             \*  
VS.                       \*   COURT   AT LAW NUMBER 13  
                             \*  
EDWIN GADDIS             \*   OF HARRIS COUNTY, TEXAS

\*\*\*\*\*

## GUILT/INNOCENCE PHASE

(TESTIMONY OF DR. FESSESSEWORK GUALE)

\*\*\*\*\*

On the 29th day of January, 2016, the  
following proceedings came on to be heard in the  
above-entitled and numbered cause before the Honorable  
Henry Oncken, Judge presiding, held in Houston, Harris  
County, Texas:

Proceedings reported by machine shorthand.

A P P E A R A N C E S

MS. ANDREA P. BEALL  
Assistant District Attorney  
SBOT No. 24086195  
1201 Franklin  
Houston, Texas 77002  
(713) 274-0500  
ATTORNEY FOR THE STATE OF TEXAS

MS. MARITZA SHARMA  
Assistant District Attorney  
SBOT No. 24075493  
1201 Franklin  
Houston, Texas 77002  
(713) 274-0500  
ATTORNEY FOR THE STATE OF TEXAS

MR. JAMES R. FLETCHER  
Tyler Flood & Associates, Inc.  
SBOT No. 24077619  
1229 Heights Blvd  
Houston, Texas 77008  
(713) 224-5529  
ATTORNEY FOR THE DEFENDANT

ALSO PRESENT:

Ms. Laura Flores, Paralegal  
Tyler Flood & Associates, Inc.

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DR. FESSESSEWORK GUALE

DIRECT  
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CROSS  
16, 26



1 January 29, 2016

2 (Jury present)

3 DR. FESSESSEWORK GUALE,  
4 having been first duly sworn, testified as follows:

5 DIRECT EXAMINATION

6 BY MS. BEALL:

7 Q Would you state and spell your name for the  
8 record.

9 A My name is Fessessework Guale,  
10 F-E-S-S-E-S-S-E-W-O-R-K G-U-A-L-E.

11 Q And what do you do for a living?

12 A I'm hired by the Harris County Institute of  
13 Forensic Sciences. I work as an analytical operations  
14 manager in the toxicology laboratory.

15 Q What is your educational background that  
16 qualifies you to hold that position?

17 A I have a degree of the Doctor of Veterinary  
18 Medicine. I also have a Master's Degree in Toxicology.  
19 I am double board certified: One by the American Board  
20 of Veterinary Toxicology and another one by the  
21 American Board of Forensic Toxicology.

22 Q What type of -- well, how long have you worked  
23 with IFS?

24 A Nine years.

25 Q And during those nine years, what have your

1 duties been?

2 A Before I become a manager, I was a team leader  
3 in one of the sections. We have three sections in the  
4 lab; that is, gas chromatography section, liquid  
5 chromatography section, and screening and alcohol  
6 section. So I was organizer of all the section and as  
7 a lead in one section and I was also -- I get promoted  
8 to Toxicologist I -- Forensic Toxicologist I to be a  
9 manager to supervise the whole laboratory personnel and  
10 supervise the workflow of the lab.

11 And now I am the analytical operations  
12 manager in that whole -- I oversee the whole laboratory  
13 operations, the analytical operations from receiving  
14 the samples up to the end of the report; and I make  
15 sure all the cases that we receive, the samples we  
16 receive, take the proper rotation and follow the  
17 standard operation procedures. And then I -- when I  
18 believe it's the right result, I will sign them out.

19 Q Are you a member of any professional  
20 organizations?

21 A Yes.

22 Q What are those organizations?

23 A American Academy of Forensic Sciences,  
24 Southwestern Association of Toxicologists, California  
25 Association of Toxicologists, American Board of

1     Veterinary Toxicology.

2           Q     What education and training have you had  
3 specifically in the area of -- the effect of drugs on  
4 the human body?

5           A     When you do Master's in Toxicology, that's  
6 what you study. You would have an extensive study of  
7 drugs and other chemicals and other toxins and poisons  
8 and how they interact in the environment and how they  
9 interact once you introduce them in your body, what the  
10 body does to them and what happens -- you know, what is  
11 the effect of the drug and how they are expressed out,  
12 behaviorally, physiologically.

13                     So those are extensive studies. And in  
14 the course of your studying, you know, to pass the  
15 board exam, you review a lot of literatures, research  
16 articles; and you update yourself with those every day.  
17 You read every day, and then you pass your board. And  
18 then after that, in the workforce, you go to  
19 conferences, present papers, you publish papers; so you  
20 are always continuously studying about the drug effects  
21 and what they do to you.

22           Q     Have you yourself published papers?

23           A     Yes.

24           Q     And what papers are those?

25           A     Just recently I had published analytical paper



1 using the state of the art instrument, which we call  
2 time-of-flight instrument; and I use that instrument to  
3 screen for the recently, you know, designer drugs that  
4 our young people are dying off. So we have that  
5 instrument and we are the first laboratory to do that  
6 and I published that. That was my recent publication.  
7 I have others.

8 Q Are you familiar through your education,  
9 experience, and training with the substances  
10 methamphetamine and amphetamine?

11 A Yes.

12 Q Can you educate us on methamphetamine and what  
13 it is?

14 A Methamphetamine is a very dangerous drug.  
15 It's a controlled substance, and you should never use  
16 it. It's a schedule II controlled substance; and the  
17 reason that nobody should use that is because it's  
18 addictive, it's dangerous, not only to yourself and  
19 also to the community, and the people that you are  
20 living with. And once you are hooked up, you become  
21 addicted to it. It's very hard to come off of it, so  
22 it's very dangerous.

23 What it does is it's a central nervous  
24 system stimulant. So in very low doses, you know, you  
25 get high, you get excited. That's the exhilaration

1     that, you know, the young people are -- and the adult  
2     people want to have in the beginning.

3                 Then the more you use it, the more you  
4     start to get addicted; and then you start using more.  
5     Then you end up having a behavior that hurts yourself  
6     and other people, you know. You get into very abusive  
7     behaviors, get into hallucinations, violent behaviors;  
8     and you become a risk taker while you are driving.

9                 So, you know, you feel like you are the  
10    only person in the world and nobody exists, so you can  
11    do whatever you want. You know, it gives you the  
12    courage and the energy to do whatever you want.

13                So it's really, really very dangerous and  
14    you can also die of it with overdose because it affects  
15    your central nervous system. It also affects your  
16    cardiovascular system; so you can die of a heart  
17    attack, you can die of excited delirium where, you  
18    know, you don't know where you are, you don't know what  
19    you do, you hallucinate, and you become out of your  
20    body.

21                It's a very dangerous drug. In a very  
22    small doses, it can be used -- there's a prescription  
23    that's a very, very small dose for narcolepsy where  
24    people are frequently sleeping; so they can take that  
25    medication, but that's a prescription drug. It's very

1 small dose, just for that purpose.

2           There's also a prescription for ADD, or  
3 attention-deficit disorder. People can take that with  
4 prescription. That's also a very small dose, which  
5 does not give you addiction behavior.

6           Q     Let me ask you about those types of  
7 methamphetamine. There are -- there's a  
8 l-methamphetamine and a d-methamphetamine, correct?

9           A     Yes.

10          Q     What is l-methamphetamine?

11          A     As in the chemistry of it, "l" and "d" stands  
12 for levorotatory or dextrorotatory. That means these  
13 are isomers. These are the same compounds but the  
14 chemistry formula is different. You know, the hydrogen  
15 is attached, the atom is attached this way or that way.  
16 This is the same molecule; but, functionally, because  
17 they are, you know, structurally different, the "l" one  
18 can be used without stimulating your brain.

19                Like, for instance, we have the Vicks  
20 inhaler that will have the l-methamphetamine in it  
21 that's been used for decongestant purposes. It doesn't  
22 go to your central because it's "l." But the dangerous  
23 one is a "d" one; that's the one that affects your  
24 central nervous system.

25          Q     So is the d-methamphetamine the illegal

1 version of methamphetamine?

2 A Yes.

3 Q Now, you are aware that -- are you aware that  
4 your laboratory produced a lab in this case?

5 A Laboratory, yes.

6 Q A lab report?

7 A Yes.

8 Q And is that what we see here in State's  
9 Exhibit 14?

10 A Yes.

11 Q Is that your name in the bottom right-hand  
12 corner?

13 A Yes.

14 Q Now, why did you sign off on this lab report?

15 A I am the expert on this cases and I have to  
16 look at it; and I have to see whether, you know, the  
17 whole case is done properly and I have to sign it out.  
18 It's in our standard operation procedures, an expert  
19 has to look at the report and make sure the case is  
20 done properly; and then I sign it out.

21 Q Looking at this lab report, what is -- what  
22 are the levels of methamphetamine and amphetamine in  
23 the defendant's blood?

24 A The amphetamine is less than .10 milligram per  
25 liter. In other words, .10 means 100 nanograms; and

1 methamphetamine is also listed as .10 milligram per  
2 liter, which is less than 100 nanograms of the blood in  
3 the sample.

4 Q Is it possible that the methamphetamine on  
5 this lab report is the l-meth, or the legal meth?

6 A It is possible because we don't have a matter  
7 to differentiate between the two.

8 Q How do we know that this is not the l-meth?

9 A Usually, when the -- when there's -- when it's  
10 not the l-meth, you find both of them in there.

11 When it is the l-methamphetamine by  
12 itself, there is a chance that you may not see the  
13 amphetamine in there.

14 Q Why is amphetamine important?

15 A Because it's a metabolite. You have to see  
16 both. It's -- when you see both drugs in the same  
17 blood sample, that means it comes from the  
18 d-methamphetamine. In most cases.

19 And the reason is, when it is an  
20 l-methamphetamine, the ones that are being used in --  
21 as a decongestant, you would not see this level in the  
22 blood. So most definitely when you see two of the  
23 parent and the metabolite, that means it comes from the  
24 "d."

25 Q Okay. So we know that this is -- am I

1 understanding you correctly in that this is the  
2 d-methamphetamine because the metabolite is there?

3 A Yes, unless this is something prescribed for  
4 narcolepsy or for ADD.

5 Q Okay.

6 A Unless those two are there, yes, this is  
7 definitely from the "d."

8 Q And in terms of ADD, which of these two  
9 substances is used to treat ADD?

10 A Actually, the ADD is only the amphetamine, the  
11 Adderall.

12 Q Okay. So would we see the methamphetamine if  
13 this were the product of ADD medication?

14 A No, you would not see the methamphetamine.

15 Q And would we see the amphetamine if this were  
16 the product of narcolepsy medication?

17 A Yes.

18 Q Okay. Would we see -- well, did you have a  
19 chance to review the video in this case?

20 A Yes.

21 Q And while reviewing the video, did you see any  
22 behavior of the defendant consistent with somebody with  
23 these levels of methamphetamine?

24 MR. FLETCHER: Object to leading, Your  
25 Honor.



1 THE COURT: Overruled.

2 THE WITNESS: Can I go ahead?

3 MS. BEALL: Yes.

4 A Yes, there are some symptoms that are  
5 associated with this level of the drug, which I see is  
6 complete fatigue of the person because these are low  
7 levels. It indicates that the person was at the  
8 crashing stage. That means where the drug is going  
9 out, so the body is yearning or wanting more;  
10 otherwise, it's going down. So we call it, you know,  
11 high when you have euphoric state as soon as you get  
12 the drug and the drug is affecting your brain, gets you  
13 excited; but as time progresses, it goes down, down,  
14 down and then you become really, really more fatigued  
15 because that drug that gives you the energy is not in  
16 you, so you get really fatigued.

17 So the level indicates to me that this is  
18 at the end of the drug and the symptom matches with  
19 this level.

20 Q (By Ms. Beall) And what symptoms did you  
21 specifically see in the defendant's behavior?

22 A He was a little bit agitated and he was  
23 also -- was not performing on the walk and turn  
24 properly. He was not holding his head properly. He  
25 was really fatigued. His talk, the way he talk is

1 another one. His actions and -- you know, repetitive.  
2 Doing something repetitive in your hand is another  
3 thing. That's, you know, out of consciousness.  
4 Subconsciously you are doing something that -- because  
5 your body is -- your body is missing something that  
6 it's used to.

7 Q And are you familiar with the term "tweaking"?

8 A Yes.

9 Q What does that term mean?

10 A Tweaking is the -- it's just a nervous effect  
11 where this is one of the symptoms of using this drugs,  
12 is tweaking; so, yes, there was a little -- not  
13 exaggerated, but there was a little tweaking there.

14 Q That you observed in the defendant?

15 A Yes, uh-huh.

16 Q Is there any such thing as just a little bit  
17 of meth to where it doesn't affect your mental and  
18 physical faculties?

19 A Well, it's my professional opinion if there is  
20 meth, it is affecting your mental and physical  
21 faculties, no matter what concentration it is.

22 Q Is there any such thing as a therapeutic  
23 amount of methamphetamine?

24 A Yes. The therapeutic amount is as long as  
25 it's under that prescription; and then there is a



1 therapeutic amount that you can obtain if you got that  
2 prescription to counteract a natural condition, like  
3 the narcolepsy or ADD. There is a therapeutic level,  
4 yes.

5 Q How do we know that this is not just a  
6 therapeutic level?

7 A It crosses in there. It crosses in the  
8 therapeutic level.

9 Q Okay. And what you observed in the defendant  
10 and what you know of the amount of methamphetamine and  
11 amphetamine present in this lab, do you believe that he  
12 was just using a therapeutic amount of methamphetamine?

13 A I -- because this is a low level of  
14 methamphetamine and because of what I saw, I -- I  
15 hardly believe this is a prescription. I cannot  
16 believe this is a prescription. If it is a  
17 prescription, he should not be behaving that way  
18 because that behavior is coming -- comes from repeated  
19 use of this drug. Usually the prescription should not  
20 last long time. So the behavior that I see does not  
21 come from a prescription.

22 Q So in your professional opinion, was this the  
23 street meth, the illegal meth that we know about?

24 A Yes.

25 MS. BEALL: Pass the witness.

1 THE COURT: Mr. Fletcher.

2 MR. FLETCHER: Thank you, Your Honor.

3 CROSS-EXAMINATION

4 BY MR. FLETCHER:

5 Q Dr. Guale, the standards have to be within an  
6 acceptable range in the raw data, correct?

7 A You mean -- what standards?

8 Q The standards have to be -- when you are doing  
9 a GC/MS, they have to be within the acceptable range in  
10 the raw data, correct?

11 A Yes.

12 Q Okay. And if they are not in the acceptable  
13 range, then that would be a problem, right?

14 A Yes.

15 Q Okay. You testified earlier that when -- some  
16 of the common signs of a person being intoxicated off  
17 methamphetamine, they would be -- you would expect to  
18 see violent behavior; is that correct?

19 A At the time, yes, depending on the stage where  
20 he was.

21 Q You testified that you would expect to see a  
22 person that's intoxicated on meth have a lot of energy,  
23 have high energy?

24 A Yes.

25 Q Okay. And you testified that you would expect

1 to see someone who is very excited?

2 A Yes.

3 Q And they might even be in delirium?

4 A Yes.

5 Q And you also testified that a person  
6 intoxicated on meth could have hallucinations?

7 A Yes.

8 Q Correct me if I'm wrong, but I heard you say  
9 that the "d" version of methamphetamine has been used  
10 to treat narcolepsy before?

11 A Yes.

12 Q Okay. And that's a prescription that a doctor  
13 can give to treat narcolepsy includes d-meth, right?

14 A Yes.

15 Q And you have no testimony today whether or not  
16 Mr. Gaddis has a prescription for any narcolepsy,  
17 right?

18 A No.

19 Q You don't know, right?

20 A I don't know.

21 Q Amphetamine, like we see on the lab result  
22 here, does not necessarily have to be a metabolite of  
23 methamphetamine, correct?

24 A There are others like the Adderall.

25 Q Right. You can see -- well, I'll put it this

1 way: Amphetamine is a common ingredient in many  
2 prescription medications, right?

3 A There are very few that we know.

4 Q Well, there are prescription medications that  
5 contain amphetamine; and they are pretty common, right?

6 A They are not common.

7 Q For ADD, it's pretty common, right?

8 A For ADD, yes.

9 Q So you don't know whether or not Mr. Gaddis  
10 has a diagnosis and prescription for ADD?

11 A No, I don't.

12 Q So it's entirely possible that the result of  
13 amphetamine that we see up there could have been a  
14 result of an ADD prescription and not necessarily a  
15 metabolite of methamphetamine, correct?

16 A But the fact that methamphetamine is there --

17 MR. FLETCHER: Object to nonresponsive,  
18 Your Honor.

19 THE COURT: Just listen to the question,  
20 and answer the question that he asks you.

21 Q (By Mr. Fletcher) It's possible, right?

22 A Amphetamine is, yes.

23 Q Now, isn't it possible, Dr. Guale, that a  
24 person could have a prescription drug containing  
25 methamphetamine and be using over-the-counter

1 medications containing methamphetamine and have the lab  
2 results that we see here?

3 A You mean, both --

4 Q Yes.

5 A -- used? Sure.

6 Q Right. So it's entirely possible that  
7 Mr. Gaddis was using a product containing  
8 l-methamphetamine and a prescription containing  
9 amphetamine and we would see lab results like what we  
10 are looking at here, right?

11 A Correct.

12 Q And you don't have any testimony that that --  
13 that he is not doing that, correct?

14 A No.

15 Q In fact, your lab cannot determine the  
16 difference between l-meth and d-meth without a chiral  
17 column, right?

18 A Correct.

19 Q And you do not -- your lab does not have a  
20 chiral column?

21 A No.

22 Q Okay. And the levels that we see here, all we  
23 know is that they are below the lowest calibration  
24 curve -- the lowest point on your calibration curve,  
25 right?

1 A Yes.

2 Q You can't tell the jury a specific level of  
3 either of those drugs, correct?

4 A No.

5 Q You can just say, well, he's got less than  
6 this and that's all we know, right?

7 A Yes.

8 Q Okay. Now, Dr. Guale, I'm going to point your  
9 attention -- direct your attention to the lab result.  
10 There was no pseudoephedrine detected in this sample,  
11 correct?

12 A No.

13 Q Okay. And isn't it true, Dr. Guale, that one  
14 of the most common ingredients in the illegal form of  
15 methamphetamine is pseudoephedrine?

16 A Say that again.

17 Q Isn't it true that one of the basic  
18 ingredients for illegal methamphetamine is  
19 pseudoephedrine?

20 A They make methamphetamine out of it, but we  
21 don't see it.

22 MR. FLETCHER: Nonresponsive, Your Honor.

23 Q (By Mr. Fletcher) Isn't it correct that  
24 pseudoephedrine is commonly used to make  
25 methamphetamine?



1           A       It's used, yes.

2           Q       Okay. But no pseudoephedrine in this lab  
3 result, right?

4           A       No.

5           Q       You testified that you watched the video and  
6 you observed Mr. Gaddis to be fatigued, right?

7           A       Yes.

8           Q       I assume you watched the video where he tells  
9 the police that he had just finished -- or that he had  
10 worked from 6:00 until 7:00 that night, correct?

11          A       Correct.

12          Q       Right. So it's entirely possible that the  
13 fatigue exhibited by Mr. Gaddis on the video was caused  
14 by him working a 12-hour shift, right?

15          A       Could be.

16          Q       Okay. And you testified earlier that any  
17 amount of methamphetamine causes intoxication. Did I  
18 hear that correctly?

19          A       It can affect your mental and physical  
20 faculties.

21          Q       Okay. It can.

22          A       Uh-huh.

23          Q       Okay. And I also heard you testify that this  
24 is a very low level of both of the -- both of the  
25 active metabolites that we see here, right?

1           A       Yes.

2           Q       Okay.  And just to reiterate, Dr. Guale, the  
3 methamphetamine that we see here could possibly be the  
4 l-methamphetamine variety, right?

5                   MS. BEALL:  Objection, asked and  
6 answered.

7                   THE COURT:  That's overruled.

8           A       The l-methamphetamine --

9                   MR. FLETCHER:  Nonresponsive, Your Honor.

10          Q       (By Mr. Fletcher) Just "yes" or "no"?

11          A       There is no "yes" or "no" answer for this.

12          Q       Isn't it possible it can be l-methamphetamine?

13          A       No.

14          Q       It's not possible?

15          A       The l-methamphetamine that we do -- you do use  
16 on the Desoxyn is not absorbent enough into your  
17 system --

18                   MR. FLETCHER:  Object to nonresponsive,  
19 Your Honor.

20          Q       (By Mr. Fletcher) You can't tell us what the  
21 level was based off these lab results, right?

22          A       No.

23          Q       Okay.

24                   MR. FLETCHER:  Pass the witness, Judge.

25                   THE COURT:  Anything from --

1 MS. BEALL: Redirect?

2 THE COURT: Yes.

3 REDIRECT EXAMINATION

4 BY MS. BEALL:

5 Q Why isn't it possible that this would be  
6 l-methamphetamine?

7 A Because the l-methamphetamines that are out  
8 there as a decongestant are locally applied in your  
9 nose; so mostly, they do not come into your system to  
10 be identified that much, even at the lower level.

11 Q So if this were methamphetamine -- or  
12 l-methamphetamine, would it even register on your lab's  
13 equipment?

14 A By itself, yeah, it would show as a  
15 methamphetamine. There's no differentiation between  
16 the two. I'm talking about the possibility of using  
17 the decongestant to show up as a methamphetamine  
18 because we cannot, you know, differentiate between the  
19 two. But the question is: Does a person can take both  
20 "l" and d-methamphetamine and it would show like this?  
21 Yes, both of them.

22 Q Okay. So how do you know that this is  
23 d-methamphetamine? Looking at this lab report, how do  
24 you know that the defendant's blood had the illegal  
25 form of methamphetamine?

1 MR. FLETCHER: Objection, Your Honor.  
2 This is speculation, and it's been asked and answered.

3 THE COURT: Overruled.

4 A Usually, when you are abusing drug, you can  
5 have both mixed or pure or by itself. There are three  
6 ways to get it. Okay? Some is mixed, "l" and "d"  
7 mixed, and some "d" by itself, which mostly that you  
8 get --

9 MR. FLETCHER: Objection to  
10 nonresponsive, Your Honor.

11 THE COURT: Overruled.

12 Q (By Ms. Beall) You can continue.

13 A Okay. So you get the "d" by itself, you get  
14 the "d" and the "l" together, and you got only "l." So  
15 the only "l" is the Desoxyn, or the decongestants. You  
16 get only "l" form because you don't want them to go to  
17 your brain. There are "d" and "l" combinations where,  
18 you know, the prescription medication can be a "d" and  
19 "l" together, like the Desoxyn for the narcolepsy; it  
20 may have both.

21 There are also -- the obesity medications  
22 that you take for obesity that has both of them in  
23 there. So for both, we cannot differentiate. If the  
24 person takes the abuse and the obesity, we can't; but  
25 if it is only "l," it would not show up. And only "l"

1 would not show up this much. That's what my argument  
2 is.

3 Q Okay. So this is not an inhalant, is that  
4 what you are saying?

5 A Yes, this does not come from an inhalant.  
6 That's what I'm talking about, or this is not "1" only.

7 Q Why doesn't pseudoephedrine show up in  
8 positive results from methamphetamine?

9 A Because the ephedrine is what the  
10 methamphetamine come out of. It's changed to make  
11 methamphetamine, so you don't see it. It's the base  
12 compound where the user pseudoephedrine and change it  
13 to methamphetamine. So there is no pseudoephedrine.

14 Q Based on what you see in the video and what  
15 you viewed in this lab report, why is it that you don't  
16 believe this is just legal narcolepsy medication?

17 MR. FLETCHER: Asked and answered, Your  
18 Honor. Objection.

19 THE COURT: I'll allow her to answer it.

20 A The reason is if it is a narcolepsy  
21 medication, it should be a low level, which this could  
22 be a low level but the person would not have that kind  
23 of side effect. Narcolepsy is people who constantly  
24 sleeping. So to make them alert is what the medication  
25 is given to them. They should be alert and they should

1 be working normal but what I see here is a person who  
2 has been abusing the drug and at the end --

3 MR. FLETCHER: Objection to speculation,  
4 Your Honor.

5 THE COURT: Overruled.

6 Q (By Ms. Beall) A person who has been abusing  
7 and...

8 A A person who is habitually doing it and then  
9 there's a high time, there's also a low time; but what  
10 I see in that person is at a crash phase, what happens  
11 at the crash phase, when you crash or the medication is  
12 weaning out of your body. That's what I see here.

13 Q So in this lab report, do we see the current  
14 processing of methamphetamine in the body?

15 A Yes, it's being metabolized.

16 MS. BEALL: Pass witness.

17 RECROSS-EXAMINATION

18 BY MR. FLETCHER:

19 Q So, Dr. Guale, you don't know anything about  
20 Mr. Gaddis' medical history, correct?

21 A No.

22 Q You don't know anything about his prescription  
23 history, correct?

24 A No.

25 Q And you don't know anything about his family



1 history or anything like that, right?

2 A No.

3 Q Okay. Do you have any testimony that he  
4 abuses methamphetamine, personally? Do you know of  
5 anything that he does that?

6 A No.

7 Q No. Okay.

8 MR. FLETCHER: Pass the witness, Your  
9 Honor.

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1 STATE OF TEXAS

2 COUNTY OF HARRIS

3  
4 I, Deanne Bridwell, Official Court Reporter  
5 in and for County Criminal Court at Law No. 13 of  
6 Harris County, Texas, do hereby certify that the above  
7 and foregoing pages contains a true and correct  
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12 which occurred in open court or in chambers and were  
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15 I further certify that this Reporter's Record  
16 of the proceedings truly and correctly reflects the  
17 exhibits, if any, admitted by the respective parties  
18 and requested to be made a part of this record.

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21 February, 2016.

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1 happens is the instrument will just -- this is raw  
 2 data. And so, basically, this value of .027 on this  
 3 chromatogram is based on the last calibration. So,  
 4 as you can imagine, different analysts are running  
 5 our calibration -- it varies from analyst to analyst,  
 6 but our acceptability, our 5-percent rule takes that  
 7 into consideration.

8                   So, on this run, this is the raw data.  
 9 This is not the actual value associated with this  
 10 standard on this curve. Because if you look at the  
 11 top under -- next to "last calibrated," it has a date  
 12 of Monday, December 22nd at 8:01. If you were to  
 13 pull up the actual chromatogram of the sample that  
 14 was run on that day, the date that it was last  
 15 calibrated is the actual curve associated with that  
 16 sample, if that makes sense.

17           Q. (BY MR. FLOOD) And that's what that refers  
 18 to, because this says, it was acquired at 7:56 on  
 19 December 22. And so, it's the same calibration from  
 20 the day same, right, it's the same day that we're  
 21 talking about?

22           A. This was run on this day --

23           Q. Okay.

24           A. -- but this is the raw data.

25           Q. Okay. Well -- so, the data says the

1 acceptable range of the 025. The 025 standard -- you  
 2 put in standards to make sure that it's calibrated,  
 3 and it's able to read what it's supposed to be  
 4 reading within the acceptable ranges, correct?

5           A. Yes.

6           Q. Okay. And you said this is important,  
 7 because if they're outside of the ranges, you  
 8 wouldn't report it, correct?

9           A. If my curve -- if this was my final  
 10 result -- if this was my raw result from my curve,  
 11 technically, the .027 is within the range. But I do  
 12 know that the raw data is not -- it doesn't always  
 13 work like that. So, when it says "Date acquired:  
 14 12/22/2014," right here with the "7:56."

15 Essentially, what happens is the instrument injected  
 16 the .025 standard, and then it created a calibration  
 17 at 8:01, which is when the chromatogram printed out.

18                   Our calibration curve is -- the actual  
 19 calibration is a result of all six calibrators. So,  
 20 all six calibrators hadn't been injected yet, which  
 21 is why this result is the raw data, and we don't use  
 22 this for our reporting criteria.

23                   In the discovery that I did provide to  
 24 Mr. Flood, there is the actual data, with the actual  
 25 result that is used for the curve and for the

1 samples.

2 THE COURT: Which represented all six  
 3 injectors, I think you called them?

4 THE WITNESS: Yes. And it will have  
 5 the proper calibration date on it, which will match  
 6 the calibration date on the sample of the result that  
 7 I did report.

8 THE COURT: "That you did report," you  
 9 said? Or you said, "didn't"?

10 THE WITNESS: That I will use to  
 11 determine the lower of the 5 percent.

12 THE COURT: Okay.

13 MR. FLOOD: May I continue?

14 THE COURT: Sure.

15 Q. (BY MR. FLOOD) Okay. So that was Defense  
 16 No. 4. These are -- when you do the calibration, it  
 17 produces a chromatogram like this, right? It will  
 18 make a line, but a calibration is introducing a  
 19 standard -- different standards, how many points are  
 20 you using, five or six?

21 A. Six.

22 Q. Six points. Okay. And it produces a  
 23 chromatogram for each one of those standards, you  
 24 know, on a staircase going up, right -- that's bad  
 25 language. But you used different known standards to

1 calibrate the machine, right?

2 A. Yes.

3 Q. Okay. So, here's -- we have the .025.

4 All -- it was just saying, this one shows it was a  
 5 .027. And here's (indicating) what was entered as  
 6 the acceptable range and it's within that acceptable  
 7 range, right?

8 A. Yes. But this is the raw data that's not  
 9 used for the calibration.

10 THE COURT: I think we're okay. I  
 11 think we're okay.

12 Q. (BY MR. FLOOD) Okay. This is Defense  
 13 Exhibit No. 5. Okay. Again, from the same batch of  
 14 the samples that you reported, correct?

15 A. Yes.

16 Q. And this is the 05 quality control  
 17 standard, right?

18 A. Yes.

19 Q. Okay. And the acceptable range is 047 to  
 20 052, right?

21 A. Yes.

22 Q. And the raw data shows it was 052, right?

23 A. Yes.

24 Q. So, at the very top. It's still within the  
 25 range, right? So, when you get into the higher

1 calibrator, this is Defense Exhibit 6. Okay. And  
2 this would be .10 standard quality control from the  
3 12/22 batch run, right?

4 A. Raw data, yes.

5 Q. Right. Well, I mean, this is what we asked  
6 for in discovery, and this is what the lab gave us,  
7 correct?

8 A. Yes.

9 Q. Okay. So, the acceptable range here is 095  
10 to a 105, correct?

11 A. Yes.

12 Q. So, this is above the range of the number  
13 you reported, right -- I'm sorry -- this is below the  
14 range of the number that was reported?

15 A. For the value of the ethanol that I found  
16 in the tube, yes.

17 Q. Okay. So, this one we have a problem with  
18 because the raw data is a .108, which makes it  
19 outside of the range; is that correct, yes or no?

20 A. No, it's not a problem.

21 Q. No, I didn't ask you that. I said, is the  
22 .108 that was reported on the chromatogram in this  
23 raw data, is that inside or outside the acceptable  
24 range?

25 A. Outside.

1 Q. Okay. And this is Defense Exhibit  
2 No. 7. Okay. And so, now we have the .20 standard  
3 from the same batch on 12/22/2014, right?

4 A. Yes.

5 Q. And so, this is above the number that you  
6 had reported in this case, correct?

7 A. Yes.

8 Q. Okay. So, this is in the area of concern  
9 of this number, because the number you reported was  
10 between that 10 and between the 20, correct?

11 THE COURT: I got that. Go on. Come  
12 on.

13 A. What is the question?

14 THE COURT: I got it. Don't worry  
15 about it.

16 Q. (BY MR. FLOOD) So, the 0.190 to the .210 is  
17 the acceptable range, right?

18 A. Yes.

19 Q. And so, this one was a .216, this is  
20 outside of this range, correct?

21 A. Yes.

22 Q. And then this is Defense Exhibit  
23 No. 8, .30 standard quality control from this batch  
24 to Mr. Imrecke's sample, right?

25 A. Yes.

1 Q. And the acceptable range is .285 to .315,  
2 right?  
3 A. Yes.  
4 Q. And the ethanol was a .323 which was -- is  
5 that inside or outside of the range?  
6 A. Outside.  
7 Q. Okay. So you -- so, the first one you had  
8 was 12/17. The first sample was on 12/17, the second  
9 one was Monday 12/22, right?  
10 A. Yes.  
11 Q. And -- I'm sorry, those weren't within; the  
12 5 percent?  
13 A. No, they were not within 5 percent of one  
14 another.  
15 Q. Okay. So, then, you ran it again to try to  
16 make it within 5 percent, correct?  
17 A. I ran it again because that's our standard  
18 operating procedure.  
19 Q. Right. Because you knew that there were  
20 issues, it wasn't complying with the lab's  
21 requirements, right?  
22 A. It was outside of the 5 percent, yes.  
23 Q. Okay. So, then, you ran it again on  
24 12/24 --  
25 A. Yes.

1 Q. -- is that right? Okay. And I have that.  
2 But -- what was that result?  
3 A. It was 0.136.  
4 Q. Okay. I'm sorry. The 12/22, the ones that  
5 we just went over are the ones that were outside of  
6 the range. And that was a .139, correct?  
7 A. Yes.  
8 Q. And the ones that were out of tolerance, so  
9 you ran it again. And the second time -- or the  
10 third time was on December 24th, and it was a 136?  
11 A. Yes.  
12 Q. Okay. So, that's the one that you  
13 reported, right?  
14 A. Yes.  
15 Q. Okay. So, from the December 17th results  
16 of a .128 the 12/24th of the 136 -- you have a  
17 calculator on you?  
18 A. No.  
19 Q. Is that within 5 percent?  
20 A. No.  
21 Q. It's not. Okay.  
22 MR. FLOOD: Judge, I'm just going to  
23 write this down, just the three dates, if that's  
24 okay?  
25 THE COURT: Okay. Quickly.



1 Q. (BY MR. FLOOD) So, 12/17 that was a .128,  
2 correct?  
3 A. Yes.  
4 Q. And there was nothing wrong with that one,  
5 right?  
6 A. Nothing wrong with?  
7 Q. You didn't have any quality controls that  
8 were out of tolerance, did you?  
9 A. No.  
10 Q. Okay. And then the 12/22, you had a .139,  
11 right?  
12 A. Yes.  
13 Q. Okay. But there was no 5-percent  
14 agreement, right?  
15 A. Yes.  
16 Q. Okay. So, then, on 12/24 you ran it again,  
17 and you got a .136, right?  
18 A. Yes.  
19 Q. So, this one was not only within 5 percent  
20 of this one, but this one also had three quality  
21 controls that were out of tolerance, correct?  
22 A. No.  
23 Q. Out of range?  
24 A. No.  
25 Q. Okay. Well, you're not denying what I just

1 showed you and what it says on the paperwork, right?  
2 A. That's the raw data. That's not what's  
3 used to determine the results.  
4 Q. Okay. And you didn't, in fact, report that  
5 one. So, you reported this one. And this one is not  
6 within 5 percent of this one either, correct?  
7 A. Correct.  
8 MR. FLOOD: Okay. I'll pass the  
9 witness.  
10 MS. WILLIAMS: A few questions, Your  
11 Honor.  
12 Can I turn his board so I can look at  
13 it?  
14 THE COURT: Okay.  
15 MS. WILLIAMS: Thank you, Your Honor.  
16 Do you mind if I use this?  
17 MR. FLOOD: Don't mark on it.  
18 MS. WILLIAMS: Oh, no, I won't write  
19 on it, no problem.  
20 MR. FLOOD: I mean, you can use my  
21 paper, that's fine.  
22 MS. WILLIAMS: Okay.  
23 MR. FLOOD: May I mark this, just for  
24 preservation purposes?  
25 THE COURT: Yes.

1 MR. FLOOD: Defense Exhibit 11, for  
 2 demonstrative purposes.  
 3 THE COURT: Okay. It's admitted. I'm  
 4 sure there's no objection, since she's using it.  
 5 Right?  
 6 MS. WILLIAMS: Yes, Your Honor, no  
 7 objection.  
 8 THE COURT: Okay.  
 9 VOIR DIRE EXAMINATION  
 10 BY MS. WILLIAMS:  
 11 Q. Just so we can clarify the runs on 12/17,  
 12 what tube was that?  
 13 A. Tube A.  
 14 Q. Tube A. And then the run on December 22nd,  
 15 what tube was that?  
 16 A. Tube B.  
 17 Q. And the run on December 24th, what tube was  
 18 that?  
 19 A. Tube A.  
 20 Q. Just to clarify, so when you ran Tube A the  
 21 first time, and then ran Tube B the first time, what  
 22 happened? Were you able to report those results?  
 23 A. No, I was -- because they're outside of the  
 24 5 percent, I did have to -- our standard operating  
 25 procedure requires that I take the value, the lowest,

1 the tube associated with the lowest value and repeat  
 2 that tube. So, I had to repeat Tube A.  
 3 Q. The tube associated with the lowest value.  
 4 So, you repeated Tube A?  
 5 A. Yes.  
 6 Q. So, when you got a .139 and .136, were you  
 7 by protocol and procedure allowed to report the .128?  
 8 A. No.  
 9 Q. And why was a that?  
 10 A. I couldn't report the .128, because our  
 11 standard operating procedure requires that we have  
 12 two values within 5 percent of one another. If the  
 13 .128 and the .136 were within 5 percent of one  
 14 another, then I would have reported the .128 value.  
 15 Q. Okay. And what about the fact that this  
 16 .128 and this .136 was on the same tube, and you're  
 17 comparing -- you want to compare Tube A and Tube B?  
 18 A. That's -- it just -- it doesn't necessarily  
 19 matter. I would've -- even if I had -- Tube B had  
 20 two lower values, it would still be okay with me to  
 21 report Tube B, based on our standard operating  
 22 procedure. Although, we are comparing A and B.  
 23 Q. Okay. And so, you followed your -- so, did  
 24 you follow your procedure and your protocol?  
 25 A. Yes.

1 Q. And so --

2 MS. WILLIAMS: A few other questions,  
 3 Your Honor. If I may publish the Defense Exhibits?

4 THE COURT: Yes.

5 Q. (BY MS. WILLIAMS) I want to take us through  
 6 them each, one-by-one, but it seemed like you had  
 7 something you wanted to explain. Is this raw data  
 8 explanations to the various exhibits, are those  
 9 relevant to the results that you reported?

10 A. No.

11 Q. And why are they not relevant?

12 A. Well, the raw data is just -- well, this is

13 actually one of the results so that, in particular,  
 14 is important. But the actual standards are --  
 15 basically, from day-to-day, we have to recalibrate  
 16 the instrument, because it's based on my -- I mean, I  
 17 calibrated the instrument based on my ability to  
 18 pipette the correct amount into the tube.

19 And so, what I was trying to explain  
 20 earlier, is that when it says "last calibrated," if  
 21 you look at the -- it doesn't calibrate the  
 22 instrument until the last standard runs, which is the  
 23 .4 standard. And so, once that standard prints out,  
 24 then the instrument is calibrated for the day. And  
 25 then, it will reprint the correct values for the

1 .025, the .05, the .1, and everything; so, that data  
 2 is not consistent with this raw data.

3 And I'm not -- I don't think I'm  
 4 explaining it the best way; so, if you have  
 5 questions, to maybe lead me in the correct direction.

6 Q. Okay. So, it sounds as if you're saying --  
 7 so you mentioned earlier, that all of the calibrators  
 8 had not been properly injected at this point; is that  
 9 correct?

10 A. They hadn't been injected yet.

11 Q. At the raw data standards?

12 A. Yes.

13 Q. So, at this point, it's not completely  
 14 calibrated, is that a correct interpretation, or am I  
 15 misconstruing it?

16 A. Yes. The calibration is complete; once all  
 17 six standards have been injected because the  
 18 calibration is based on all six standards.

19 Q. Okay.

20 MS. WILLIAMS: And just to clarify,  
 21 Your Honor, I was referencing the defense exhibits  
 22 regarding the standards. So, that would be Defense  
 23 Exhibit No. 8, Defense Exhibit No. 7, Defense Exhibit  
 24 No. 4, Defense Exhibit No. 6, Defense Exhibit No. 5.

25 Q. (BY MS. WILLIAMS) Okay. So, ultimately, I

1 just need you to explain in the simplest manner, why  
 2 the number that you reported is accurate, and you're  
 3 able to testify to that fact.

4 A. So the number that I reported is accurate,  
 5 because I followed all the standard operating  
 6 procedures. The instrument was working properly; I  
 7 had no issues. The maintenance was performed, the  
 8 calibration was acceptable, and all of the quality  
 9 controls bracketing all my data fell within range.  
 10 So, based on that information, I was able to provide  
 11 a result that I believe is accurate and reliable.

12 THE COURT: Can I ask a question here?

13 MR. FLOOD: Yes.

14 MS. WILLIAMS: Yes, Your Honor.

15 THE COURT: Thank you.

16 So then I flat -- don't understand.  
 17 Because we just saw three of your test runs -- I  
 18 guess you could call them -- that weren't within the  
 19 range of tolerance that is supposed be acceptable.  
 20 And if I'm using incorrect words, forgive me. And,  
 21 yet, you just said that they are within range. I  
 22 don't understand.

23 THE WITNESS: I was saying that the  
 24 quality controls are -- you're saying the actual  
 25 values of the results of tubes for the case or are

1 you saying --

2 THE COURT: No. No, no, no, of the  
 3 calibration runs.

4 THE WITNESS: Okay.

5 THE COURT: So, if you do these  
 6 calibration runs -- is that okay to say that?

7 THE WITNESS: Yes.

8 THE COURT: -- and they come out  
 9 wrong, outside the range of tolerance for that. How  
 10 does that mean that it is running properly, then?

11 THE WITNESS: I guess, one of the ways  
 12 that I think of it is -- so, I guess -- I'm trying to  
 13 think of an example. It's almost like you can't  
 14 trust the value of -- like, for example, the .025  
 15 standard printed off first, but that .025 standard,  
 16 the value of that is not taking into consideration  
 17 all of my other values because they haven't run yet.  
 18 So, that's why I said that the calibration -- the  
 19 values of the standard for the calibration curve  
 20 aren't -- they're not printed. And -- I mean,  
 21 they're printed, but that's the raw data. It's not  
 22 the actual useable data until we include all of the  
 23 standards --

24 THE COURT: Why?

25 THE WITNESS: -- to determine the

1 result.

2 Because that -- because the  
3 calibration is -- as the instrument is running, it's  
4 taking that value and recalibrating, essentially.  
5 So, it has six standards; it takes the first standard  
6 and injects it, and that's the only standard it's  
7 using to base that value onto it. But since we're  
8 using six, we have a wide range of acceptability we  
9 want. We want to be able to produce a reliable  
10 result from .025 all the way to .42. So, in order to  
11 do that, we can't just use one standard to generate a  
12 great result, right, you need all six calibrators to  
13 cover that wide range.

14 So, even after the first standard is  
15 injected, that's just one of six. It's only, you  
16 know, less than 20 percent of the calibration being  
17 injected out of the entire six that need to run.

18 THE COURT: Okay. But if three were  
19 outside of range, now you're talking about half of  
20 it.

21 THE WITNESS: But they're not outside  
22 of range, they're just -- I have a copy of the  
23 Discovery Order here. And I'm not sure if --  
24 actually, if I printed -- I mean, maybe pulled that  
25 up and showed it you. The actual results and how the

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1 time of the last calibration with that matches what  
2 is reported on the actual chromatogram as the result.

3 THE COURT: Let me ask you this  
4 question: What would you have to see in those  
5 calibration runs to say, Okay, we're not working  
6 properly?

7 THE WITNESS: After the last standard  
8 prints, then the actual -- it's no longer the raw  
9 data that will be printed out. The actual useable  
10 data will be printed out. So, then, if those  
11 standards are outside of the range because it's  
12 including all six standards to determine those  
13 values. Then, it would have to be within that narrow  
14 range of acceptability for each of the standards.

15 THE COURT: Do you have that printout  
16 with you?

17 THE WITNESS: I have it on a disk for  
18 the discovery, but I don't have the actual printout  
19 of it.

20 THE COURT: Do you happen to have  
21 that, do you know, for that day, the 22nd?

22 MR. FLOOD: I don't.

23 MS. WILLIAMS: Your Honor, while he  
24 looks, maybe, I could pull it up more quickly on the  
25 disk.

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1 THE COURT: You want to try that?  
 2 THE WITNESS: Sure.  
 3 THE COURT: Thank you.  
 4 THE WITNESS: So, it's under the  
 5 calibration curve and QC. You just have to, like,  
 6 click through until you get to it.  
 7 MS. WILLIAMS: Just tell me when to  
 8 stop.  
 9 THE WITNESS: This is for the 17th  
 10 run, so the 24th -- or the 22nd should be after that.  
 11 THE COURT: Would it help if you went  
 12 to the computer and looked?  
 13 THE WITNESS: Yes.  
 14 THE COURT: Okay. Would you?  
 15 MR. FLOOD: I may have what she's  
 16 looking for. Are you looking for this?  
 17 THE WITNESS: No, the actual  
 18 chromatograms associated with it.  
 19 MR. FLOOD: I showed you the  
 20 chromatograms.  
 21 THE WITNESS: That's for the raw data.  
 22 THE COURT: Go to the computer, if you  
 23 would please.  
 24 (Witness complies)  
 25 (Recess taken)

1 (Open court)  
 2 THE COURT: All right. So in the  
 3 recess, y'all were able to find the correct page of  
 4 the Discovery?  
 5 MS. WILLIAMS: Yes, Your Honor, we  
 6 were.  
 7 THE COURT: All right. Have you shown  
 8 it to Mr. Flood so he knows what you are looking at?  
 9 MS. WILLIAMS: Mr. Flood is looking at  
 10 the Discovery right now.  
 11 THE COURT: Are you ready, Tyler?  
 12 MS. WILLIAMS: Your Honor, in his  
 13 defense, I just gave him several.  
 14 MR. FLOOD: I think I'm ready.  
 15 THE COURT: Do you have printed out  
 16 copies or just --  
 17 MS. WILLIAMS: I printed out one copy,  
 18 yes, Your Honor.  
 19 THE COURT: All right.  
 20 MR. FLOOD: I am ready.  
 21 THE COURT: Okay. Is the State  
 22 offering something at this time for the purposes of  
 23 this hearing?  
 24 MS. WILLIAMS: Yes, Your Honor, State  
 25 is.



1 Your Honor, may I approach the  
2 witness?  
3 THE COURT: Yes.  
4 MS. WILLIAMS: I apologize.  
5 We have what's been previously marked  
6 as State's Exhibit No. 20, State's Exhibit No. 21,  
7 State's Exhibit No. 22, State's Exhibit No. 23,  
8 State's Exhibit No. 24, and lastly, State's Exhibit  
9 No. 25.  
10 THE COURT: Any objection?  
11 MR. FLOOD: I have to look at a couple  
12 of pages. But if I can just look at the rest, I  
13 don't think I will have any objections.  
14 No objections.  
15 THE COURT: All right. State's 21  
16 through 25 are admitted for purposes of the hearing.  
17 MS. WILLIAMS: Thanks, Your Honor.  
18 May I publish?  
19 THE COURT: Yes.  
20 MS. WILLIAMS: I'm sorry, I put 20,  
21 but I'd like to correct that, 21 through 26.  
22 THE COURT: Okay. So, it should be 21  
23 through 26?  
24 MS. WILLIAMS: Yes, Your Honor.  
25 THE COURT: Thank you.

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1 Q. (BY MS. WILLIAMS) Okay. Before the recess,  
2 you were explaining that there is actual correct data  
3 that is used. Is this a copy of that data? Is this  
4 correct data?  
5 A. Yes.  
6 Q. And State's Exhibit No. 22, is that also  
7 the correct data?  
8 A. Yes.  
9 THE COURT: When you say "correct  
10 data," you mean "final data" rather than raw?  
11 THE WITNESS: Yes. So, this is the  
12 data that's based on all six calibration standards.  
13 So, this calibration occurred after my last standard  
14 was injected.  
15 THE COURT: So, it just runs all six  
16 at the same time?  
17 THE WITNESS: Each sample takes eight  
18 minutes to run. So, the raw data is -- it's  
19 injecting the first standard, and then it prints it  
20 out. It only takes into consideration what it has in  
21 the system already. So, then, when it injects the  
22 second standard, it takes into consideration, both,  
23 the first and the second, but there's still four  
24 more.  
25 THE COURT: So, it's cumulative?

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1           THE WITNESS: Yes. So, that's why the  
2 final -- so, this .025 value is based on the  
3 linearity of all six standards being considered.

4           THE COURT: So, it adjusts itself?

5           THE WITNESS: Yes.

6           THE COURT: Okay.

7           Q. (BY MS. WILLIAMS) And so --

8           THE COURT: I'm sorry. Let me make  
9 sure I am getting it.

10           So, in the first six runs, you're  
11 telling it what it should be reading, and it comes  
12 back and self-adjusts to those standards. So, if you  
13 were to repeat that, it would read all six correctly?

14           THE WITNESS: Can you say that one  
15 more time?

16           THE COURT: Are you following what I'm  
17 saying?

18           MR. FLOOD: I am, but that's not  
19 what -- I mean, by all means please ask.

20           THE COURT: No. If I'm wrong, I need  
21 to know.

22           The first time you put them all  
23 through you get certain results. And once it's  
24 finished, does the instrument figure out that it's  
25 reading incorrectly, because you've told it what it's

1           supposed to be reading, and then adjusts itself to  
2 calibrate to the proper readings --

3           THE WITNESS: No.

4           THE COURT: -- proper values? What's  
5 really happening then?

6           THE WITNESS: So it's just injecting.  
7 It's, basically, using -- it's collecting data as the  
8 instrument is running, and then once that sixth  
9 standard runs, and it has the data from that, it  
10 takes all six standards into consideration.

11           And then it -- based on those six  
12 standards, collectively, will determine, well, okay,  
13 that means the first standard is this; the second  
14 standard is this.

15           THE COURT: Let's keep going and see  
16 if I catch on after a while. Okay.

17           Q. (BY MS. WILLIAMS) Okay. So right here we  
18 see State's Exhibit No. 21, and this addresses, I  
19 guess, the .025 standard?

20           A. Yes.

21           Q. And so, as you said, this is the run  
22 through after all the samples -- the standards have  
23 been injected; is that correct?

24           A. Yes.

25           Q. And so -- correct me if I'm wrong, after

1 all, six of those samples have been inserted, now  
 2 it's going back to check that .025 standard to see if  
 3 it is within range now that everything has been  
 4 contributed to the instrument?

5 A. Essentially, yes. It's not reinjecting it.  
 6 It's just taking that information and saying, Okay.  
 7 So this is really what the .025 standard is, based on  
 8 all six standards that were injected.

9 Q. Okay. And so, all six standards have been  
 10 injected, now, it's checking to make sure that that's  
 11 really what the standard is?

12 A. After all six standards were injected, now  
 13 it's saying this is what the result is of your .025  
 14 standard.

15 Q. Okay. And so now that all of the standards  
 16 have been injected, the range has been listed as a  
 17 .022 to .027, and the bottom here has it as a .024 is  
 18 that within range?

19 A. No.

20 Q. And so now that we understand that all  
 21 standards have been introduced into the instrument,  
 22 if this reading would have been out of range, what  
 23 would you have had to do per protocol?

24 A. Well, because this is run before I even run  
 25 any case samples, I have a number of choices. I

1 could realiquot the curve and start over, or I could  
 2 just wait until another day and try to redo the  
 3 calibration curve again that day.

4 But this would not be acceptable. I  
 5 could not -- I could not run cases or data with this  
 6 if it was outside of the range.

7 Q. Okay. And it's this final report that you  
 8 have to take into consideration?

9 A. Yes.

10 Q. All right. State's Exhibit No. 22, this is  
 11 regarding the .05 standard; is that correct?

12 A. Yes.

13 Q. And the range states a .047 to a .052, and  
 14 the ethanol states a .047, is that within range?

15 A. Yes.

16 Q. State's Exhibit No. 23, this is in regard  
 17 to the .1 standard; is that correct?

18 A. Yes.

19 Q. And the range is a .095 to a .015; the  
 20 ethanol stated is .098, is that within the acceptable  
 21 range?

22 A. Yes.

23 Q. State's Exhibit No. 24, regarding standard  
 24 .2. It states the range as a .190 to a .210, and it  
 25 has the ethanol as a .197, is that within the

1 acceptable range?

2 A. Yes.

3 THE COURT: To save time, is it fair  
 4 to say that the next few are also within the accepted  
 5 range?

6 THE WITNESS: Yes.

7 THE COURT: All right.

8 Q. (BY MS. WILLIAMS) And so --

9 THE COURT: Move on.

10 MS. WILLIAMS: Okay.

11 Q. (BY MS. WILLIAMS) You mentioned earlier  
 12 that you were building a curve?

13 A. Yes.

14 Q. Did this -- after the instrument had all  
 15 six standards introduced, was this curve within range  
 16 and allowed for you to move forward with the blood  
 17 test?

18 A. Yes.

19 Q. And all of these actions that you took in  
 20 making that determination, is that per the procedure  
 21 and protocol of your lab?

22 A. Yes.

23 Q. And is it required to keep all three of  
 24 your accreditations?

25 A. Yes.

1 Q. Lastly, it's become apparent that we're  
 2 still determining the accuracy and reliability. Do  
 3 you have in addition that you would like to tell the  
 4 Court in regards to that issue?

5 A. I would. I guess, just solely based on the  
 6 fact that my value was consistent with my values on  
 7 my other runs on other days when there were no  
 8 issues, leads me to believe that this value was also  
 9 reliable.

10 In addition, if there were any issues,  
 11 I'm not the only person that checks the run. We have  
 12 numerous analysts that will, you know, come behind me  
 13 and double-check things, as well as a technical  
 14 reviewer, who will review the entire case as a whole.  
 15 If they would have seen an issue with this curve, the  
 16 run, or anything associated with the case, they would  
 17 have sent it back to be repeated. Or they would have  
 18 talked to me, possibly, the manager, if corrective  
 19 action needed to be taken. After that, the manager  
 20 is also the expert reviewer, who looks over the case  
 21 again.

22 And so, because there are -- I'm not  
 23 aware of any stops or issues or concerns throughout  
 24 the entire time that this case was in the lab. And  
 25 so, because of that, I do believe that the results

1 are accurate and reliable.

2 MS. WILLIAMS: State passes the  
 3 witness, Your Honor.

4 THE COURT: Mr. Flood.

5 MR. FLOOD: Your Honor, first of all,  
 6 I'd like to request that items in the Discovery Order  
 7 that were not complied with be produced to us at this  
 8 time. Specifically, Item No. 4. We had a Blood  
 9 Discovery Order that was in place since December of  
 10 2014, and No. 4 is: "The laboratory's standard on  
 11 general policies, protocol, and procedures concerning  
 12 testing, quality control, quality assurance,

13 calibration, achievement of the calibration curve,  
 14 and administrative or technical review, if  
 15 applicable, to all disciplines within the  
 16 laboratory."

17 THE COURT: Hold on.

18 Do you have that with you?

19 THE WITNESS: Well, the Discovery  
 20 Order is something that's handled by our quality  
 21 department, and that is what's on the disk.

22 THE COURT: No, no, no. I'm just  
 23 asking, do you happen to have those things with you,  
 24 any of them?

25 THE WITNESS: I'm not sure if it's on

1 the disk. Our quality department also sent an email  
 2 with additional materials, that I believe did include  
 3 that.

4 THE COURT: Okay.

5 MS. WILLIAMS: Your Honor, we received  
 6 that email; and so, we're about to print it. And so,  
 7 Mr. Flood will get the information he subpoenaed for  
 8 on Monday.

9 MR. FLOOD: Judge, we also issued a  
 10 separate subpoena for this witness to bring these  
 11 items to court that were not provided according to  
 12 the agreed Discovery Order. I asked her, and she  
 13 said --

14 THE COURT: Why didn't I know this  
 15 Monday?

16 MR. FLOOD: We were hoping that they  
 17 would come to court with the witness. And now  
 18 there's this issue that comes up, so it makes it all  
 19 the more important.

20 THE COURT: Tyler, I really appreciate  
 21 your thoroughness, I do.

22 MR. FLOOD: We've been diligent, and  
 23 we have an order.

24 THE COURT: I get that. But here's  
 25 the problem: I feel like it's a surprise party that



1 I keep walking in on over and over. Surprise.  
2 Surprise.

3 MR. FLOOD: That's the way I feel with  
4 this witness and her testimony.

5 THE COURT: I get that. But if you  
6 had told me Monday that we were still waiting for  
7 this discovery that I ordered a while back; stuff you  
8 subpoenaed for Monday -- you announced ready without  
9 it.

10 MR. FLOOD: I did.

11 THE COURT: And so, I'm frustrated by  
12 that.

13 I'm frustrated by the appearance of a  
14 Motion to Suppress that was, apparently, well thought  
15 out and well prepared in the middle of testimony.  
16 I'm frustrated by all these things being sprung. Now  
17 great strategy, I guess. But I'm worn out by them.

18 So, I'm going to recess for lunch, and  
19 I'm going to be back here at 2:00 if I can get myself  
20 some food and get back here.

21 In the meantime, I'm going to let  
22 y'all have a free-for-all here in the courtroom and  
23 figure out if you have what you need. Try to get  
24 some food. And y'all just let me know. If you're  
25 not ready by 2:00, somebody email me to stay where I

1 am for a few more minute. And by 2:15, I may end up  
2 sending the jury home. Because at some point, we've  
3 got to report to them on what we have and what we  
4 need -- what we have and what they need to hear to  
5 finish this trial. So -- questions?

6 MR. FLOOD: You also said we would  
7 reconvene with the Dr. Gualle hearing too. I would  
8 assume that would take place after this, and that's  
9 going to take even more time.

10 THE COURT: Do we need -- I'll be  
11 back. We'll see when we get back. Thank you.

12 (Luncheon recess)

13 (Open court)

14 THE COURT: Okay. We're back on the  
15 record.

16 During the recess, we have had an  
17 opportunity, as a group, to sit down and discuss our  
18 questions with Dr. Guale -- is that how she says her  
19 name?

20 MS. WILLIAMS: Yes, Your Honor,  
21 Dr. Guale.

22 THE COURT: As follow up, is there  
23 anything else the State has with Ms. Peterson?

24 MS. WILLIAMS: No, Your Honor.

25 THE COURT: Mr. Flood, on this issues,



1 of course.

2 **VOIR DIRE EXAMINATION**

3 BY MR. FLOOD:

4 Q. In your standard operating procedures,  
5 there's guidelines that state there's a 5-percent  
6 target value -- plus or minus 5-percent target in the  
7 quality control in the standards, correct?

8 A. The standards and the quality controls are  
9 two different things, so --

10 Q. The standards.

11 A. For the standards, it's 5 percent; but for  
12 our lowest standard, that's 10 percent.

13 Q. Okay. And that the first standards that we  
14 saw in the batch run on the 22nd, there were three  
15 that were outside of the 5 percent, the .10, the .20,  
16 and the .30, correct?

17 THE COURT: Does that apply to those?

18 THE WITNESS: The 5-percent rule does  
19 not apply to the raw data, but it does apply to the  
20 standards that would be used for the runs associated  
21 with the cases.

22 Q. (BY MR. FLOOD) And Mr. Imrecke's sample  
23 that he was tested, his chromatogram, would also be  
24 considered raw data?

25 A. No.

1 Q. What do you call that?

2 A. The difference between the raw data and the  
3 reportable data is, specifically, the date of the  
4 calibration that I mentioned previously. So, on the  
5 reportable data, if you look at the last calibrated,  
6 next to the last calibrated, I believe, it has the  
7 time that's associated with the last time that the  
8 final standard ran and calibrated the instrument,  
9 prior to the case samples being run.

10 Q. But you reported his without being  
11 manipulated, right?

12 THE COURT: Without what?

13 Q. (BY MR. FLOOD) Without it being changed,  
14 you reported that as printed, right?

15 A. I didn't manipulate any data.

16 Q. Well, there's raw data, and then there's  
17 different data, what do you call that?

18 A. The reportable data.

19 Q. And raw data is what the chromatograms are  
20 that comes out of the machine?

21 A. It comes out before the final calibration  
22 standard has been injected, yes.

23 Q. And then, the computer will change the raw  
24 data by a macro or something for it to be reportable?

25 A. This doesn't change that data. It just

1 calculates what the standards would be based on the  
 2 last calibrator being included in the calibration.

3 Q. Okay. Can you have an area count that it  
 4 corresponds to, like, a .027, and then the exact same  
 5 area count that corresponds to an 024? The area  
 6 count should be different if the response is  
 7 different, right?

8 A. Depending on the internal standard, we  
 9 don't directly look at the area count of the standard  
 10 without looking at the ratio between that area count  
 11 and the internal standard.

12 Q. Okay. So, if the internal standard area  
 13 count is exactly the same -- if it's one number and  
 14 the ethanol area count, then we have two numbers, and  
 15 it corresponds to a .027.

16 And then, you have an 024, you  
 17 shouldn't have the exact same internal standard area  
 18 and the exact same ethanol area count, should we?

19 You can't have two different response  
 20 numbers with the exact same area counts on both  
 21 peaks, can you?

22 A. I'm not sure. Because I -- the area  
 23 count -- I think there's other factors that determine  
 24 that, so I can't for sure answer that with a definite  
 25 yes or no.

1 Q. Well, you realize that in this case the two  
 2 different calibration chromatograms that you showed  
 3 us, there's different response numbers --  
 4 quantifications, right?

5 A. The values are different, yes.

6 Q. But all of the internal standard and  
 7 ethanol area counts are exactly the same on both  
 8 sets?

9 A. Okay.

10 Q. Are you aware of that?

11 A. No.

12 Q. So, how are those numbers changed?

13 A. The value of the .025 standard, for  
 14 example, is based on the calibration. So it's like  
 15 we mentioned earlier, the calibration isn't complete  
 16 until after the last standard being used to make the  
 17 calibration has been injected. So, once the last  
 18 standard is injected, then the proper value for each  
 19 of the standards can be determined.

20 Q. All right. That first calibration is where  
 21 it has the vials that are outside of the range on the  
 22 raw data. The machine -- the autosampler, actually,  
 23 picks up a headspace vial and injects the sample into  
 24 the machine -- into the instrument, and it reads it,  
 25 right?

1 A. Yes.

2 Q. Okay. So, to say that it's using  
 3 yesterday's data, or something like that, that's not  
 4 accurate. The beginning of that batch and those  
 5 sheets we showed you where there's three standards  
 6 that were out of range, those are actual samples  
 7 being picked up and injected into the gas  
 8 chromatography, correct?

9 A. Yes.

10 Q. And they were reading out of tolerance,  
 11 correct?

12 A. The raw data did show that it was outside,  
 13 yes.

14 Q. Right. The raw data, the first data, the  
 15 data that came out, the chromatography said that it  
 16 was not in compliance of 4.4.4 of your Standard  
 17 Operating Procedures of saying, it must be within  
 18 5 percent, correct?

19 A. That doesn't apply to the raw data.

20 Q. My question was: Was it within the  
 21 5 percent of the range that it says on the sheet,  
 22 right?

23 A. So, you're saying the printout -- the  
 24 printed value was not within the range that's on that  
 25 printout, yes, that's correct.

1 Q. Okay. And there's nothing in your  
 2 procedures that talks about raw data versus any other  
 3 type of data, it just says standard curves are  
 4 constructed using appropriate procedures and  
 5 pipetting techniques and that the calculated  
 6 concentration standards must be within these  
 7 5 percent. There no -- raw data doesn't ever appear  
 8 in there or other data after that fact, doesn't it?

9 A. Nope.

10 MR. FLOOD: All right.

11 I mean, I don't have any questions,  
 12 Judge. But I reurge my issue.

13 This witness, I don't think, in my  
 14 opinion, sufficiently explained it to the Court, and  
 15 can't explain why the plain language of their  
 16 Standard Operating Procedures wasn't followed. And  
 17 there's no need to talk about raw data versus other  
 18 data. It's not in compliance.

19 THE COURT: All right. And that  
 20 objection is overruled. And that's all we're dealing  
 21 with right now with this witness.

22 I have an idea: Why don't we have the  
 23 officer come in and testify, for purposes of the  
 24 hearing, for a minute or two, and see how many of the  
 25 factors y'all can pull out of him, before I can make

1 a decision as to Dr. Guale.  
2 Okay. Would you return to the witness  
3 room, please.  
4 (Motion to Suppress Continued)  
5 THE COURT: All right. You're back.  
6 Come on up here this time.  
7 THE WITNESS: Okay.  
8 THE COURT: Do you have a calculator  
9 with you?  
10 THE WITNESS: I have it on my phone.  
11 THE COURT: Would you mind pulling  
12 that out?  
13 (Dr. Guale complies)  
14 THE COURT: Are you comfortable using  
15 Widmark's Formula?  
16 THE WITNESS: Yes.  
17 THE COURT: Would you calculate for us  
18 what the result would be with our factors with  
19 Widmark. You tell me what you want me to tell you  
20 first.  
21 THE WITNESS: Okay. So for me to use  
22 the Widmark Formula and do back extrapolation, I have  
23 to assume elimination phase.  
24 THE COURT: Why?  
25 THE WITNESS: The person was

1 eliminating.  
2 THE COURT: Okay. And so, you're  
3 telling me that if we're still in absorption, you  
4 can't do extrapolation?  
5 THE WITNESS: Because there's going to  
6 be missing data. Because you need to have the number  
7 of drinks, you know, that that person had drunk in  
8 grams, and then you have to put that in there. That  
9 means it's interrogate calculation.  
10 THE COURT: And then --  
11 THE WITNESS: It's not going to be  
12 retrograde, it's going to be interrogate calculation.  
13 THE COURT: And so, let's say you  
14 don't know which one it is, which of your formula  
15 would you use?  
16 THE WITNESS: I would use the Widmark  
17 Formula for elimination only, assuming elimination.  
18 THE COURT: Okay. If we can't assume  
19 elimination, what would we use, which of those six  
20 formulas?  
21 THE WITNESS: All formulas are the  
22 same. It's just the volume of distribution -- the  
23 value that they put into the volume of distribution.  
24 THE COURT: Okay.  
25 THE WITNESS: Let me put the formula

1 for you, and I'll explain to you what that means.  
 2 THE COURT: No, I'm with you now.  
 3 THE WITNESS: Okay.  
 4 THE COURT: So, if we don't --  
 5 THE WITNESS: Can I explain this to  
 6 you?  
 7 THE COURT: No, hold on. Hold on. I  
 8 think we're fine. I think they're just different  
 9 ways of calculating the same thing, right?  
 10 THE WITNESS: Yes.  
 11 THE COURT: With different things,  
 12 like body mass, instead of just weight and height and  
 13 things like that?  
 14 THE WITNESS: Yes.  
 15 THE COURT: Okay. So, if you don't  
 16 know when the person last ate, you cannot say with  
 17 certainty whether they were in the elimination phase,  
 18 right?  
 19 THE WITNESS: You can. But you can  
 20 estimate by giving the maximum allowed. Like, for  
 21 instance, if you tell me the person has a full  
 22 stomach, and I want you to calculate it with, you  
 23 know, two-hour absorption from the time that he's  
 24 stopped. Like, he stopped at 12:00 o'clock.  
 25 THE COURT: Okay. Let's say the last

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1 food and drink was at midnight.  
 2 THE WITNESS: Okay.  
 3 THE COURT: And he got stopped at  
 4 1:41.  
 5 THE WITNESS: Okay.  
 6 THE COURT: And tested at 2:36.  
 7 THE WITNESS: Okay.  
 8 THE COURT: And we're going to give  
 9 him the maximum time for absorption --  
 10 THE WITNESS: Okay.  
 11 THE COURT: -- which is two hours.  
 12 THE WITNESS: Okay.  
 13 THE COURT: If I give you those  
 14 circumstances, then, you know he's in the  
 15 absorption --  
 16 THE WITNESS: I can assume he was  
 17 absorbing the whole time until the incident.  
 18 THE COURT: Right. And maybe even 19  
 19 more minutes.  
 20 THE WITNESS: Nineteen more minutes.  
 21 And I can subtract .024, which is the total  
 22 concentration of alcohol you can obtain from having a  
 23 two-hour absorption.  
 24 THE COURT: Okay.  
 25 THE WITNESS: Subtract that from .13,

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1 and I can tell you it's going to be .11, giving the  
2 benefit of the doubt.

3 THE COURT: Okay. So, .13 is what you  
4 had estimated earlier?

5 THE WITNESS: Earlier, at 2:36, it was  
6 .136.

7 THE COURT: But what would you  
8 estimate, then, at the time of 1:41?

9 THE WITNESS: At the time of 1:41 --

10 THE COURT: You're going to --

11 THE WITNESS: So it's only 55 minutes.  
12 It can be --

13 THE COURT: So, it's going to be 13.

14 THE WITNESS: Yeah, yeah.

15 MR. FLOOD: You're assuming  
16 elimination of 1.1?

17 THE COURT: No.

18 MR. FLOOD: That's what she's doing.

19 THE WITNESS: That's the maximum that  
20 you can go. Like, 12:00 o'clock he stopped, okay.  
21 So, he was absorbing for two hours.

22 THE COURT: Right.

23 THE WITNESS: Which is going to be  
24 2:00 o'clock, right?

25 THE COURT: Right.

1 THE WITNESS: So, at that time he  
2 would gain 0.02 grams of alcohol.

3 THE COURT: Right.

4 THE WITNESS: But you have up to 2:36,  
5 which is --

6 THE COURT: The test.

7 THE WITNESS: -- the test, which is  
8 .136. In 30 minutes, he can eliminate, at that time.  
9 And then, in 30 minutes, if a person eliminates .15  
10 in one hour, I can have 30-minute elimination, which  
11 will be .007. So, add that; it will be 311; 143 and  
12 minus 02, which is 123 -- 0.123.

13 THE COURT: Is there any set of  
14 circumstances where someone who's a .136 at 2:36,  
15 would not have been .08 at 1:41 if they stopped  
16 drinking at midnight?

17 THE WITNESS: There's no way they  
18 would be .08. It would be above.

19 THE COURT: Questions?

20 MR. FLOOD: That is totally not true.

21 THE COURT: Are you answering me when  
22 I ask if you have questions?

23 MR. FLOOD: I have questions.

24 THE COURT: There you go. Now, we're  
25 on the right track. Ask them.



1 **RECROSS-EXAMINATION**

2 BY MR. FLOOD:

3 Q. You testified several times that you cannot  
4 extrapolate and give a number if a person is in the  
5 absorption phase?

6 A. You can give a range. You cannot  
7 extrapolate.

8 Q. A range?

9 A. Yes.

10 Q. What are you assuming to come to that  
11 number?

12 A. What I'm assuming?

13 Q. Correct.

14 A. What I'm assuming is -- it will go through  
15 the whole formula calculation it has to take. You  
16 have to tell me the number of drinks, and how many  
17 grams were in there.

18 Q. Okay. Do you have that -- do you have the  
19 number of grams in the drinks?

20 A. No, nobody told me that. How many grams?  
21 I don't have that.

22 Q. What else do you need? Now, you're doing  
23 an extrapolation back into the absorption phase; is  
24 that right?

25 A. Yeah, using that fact. Which the fact is,

1 I just used it to add the maximum that's from the  
2 literature.

3 Q. You need to know --

4 A. It's 2 hours.

5 Q. -- you need to know when his drinking --  
6 you need to know the drinking pattern up to the stop,  
7 right?

8 A. No. It's just only calculating after he  
9 stopped. Before that, it doesn't matter whether --  
10 his drinking pattern, or what kind of drinking  
11 pattern.

12 Q. Of course, it does.

13 A. The reason is, I'm basing my calculation  
14 based on the fact I have. That fact I have is: at  
15 2:36 a.m., he had 0.136 grams of alcohol.

16 Q. Okay.

17 A. That is a fact. I can go back using that.

18 Q. To 2:00 o'clock?

19 A. Yes, to 2:00 o'clock.

20 Q. But not to 1:41?

21 A. I can go with that assumption I just gave  
22 you.

23 Q. Assumption?

24 A. No. Based on a fact of two hours  
25 absorption, we just give the benefit of the doubt, he

1 stopped at 12:00 o'clock. That was a fact that I was  
2 given. If he stopped at 12:00 o'clock, I can come  
3 back from .136 to that point using both absorption  
4 and elimination. That's all I need. And this is a  
5 fact. I don't care about what happens before  
6 12:00 o'clock.

7 Q. What if he drank eight beers and three  
8 shots before midnight and that was his last drink,  
9 he's going to be absorbing for two hours?

10 A. Okay. For that, humanly possible, he  
11 should be vomiting and not physically possible to do  
12 that. That's impossible.

13 Q. That's your opinion. The Judge asked you  
14 if there's any scenario. If a person takes a bolus  
15 dose of alcohol at one time before midnight and  
16 stops, there's a scenario where he can keep rising  
17 from the whole two hours, right, and go from a low  
18 BAC to a high BAC, right?

19 A. But you have a stop time at 6:00 o'clock  
20 that doesn't work.

21 Q. I'm not asking about that. The question  
22 the Judge asked you, is there any scenario? And she  
23 didn't say at 6:00 o'clock. So, is there any  
24 scenario, if a person drank a large amount of alcohol  
25 and ended at midnight, in a short amount of time,

1 there is a scenario where he can --

2 A. But that's unbelievable. I don't believe  
3 that scenario exists.

4 Q. So, it's your personal belief, not basing  
5 it on what science dictates?

6 A. Science tells me this is humanly  
7 impossible.

8 Q. To go from a .08 to a 136 in two hours?

9 A. No. For your theory to work, for one  
10 person to drink eight drinks and three shots at one  
11 time, it's physiologically impossible for your body  
12 to absorb that much alcohol. And we're talking about  
13 slow absorption and fast absorption, let's get real  
14 here. When you do scenarios, please, assume a  
15 scenario that's possible, humanly possible.

16 Q. And we are. That's what we're talking  
17 about possibilities, not what your personal belief  
18 is.

19 A person could be at a .07 at midnight  
20 and have drank a certain amount of alcohol, a large  
21 amount, okay, it happens sometimes, right?

22 A. I don't know. Do you have proof? Is  
23 there's an open container in there or anything?

24 Q. I'm asking you to be a scientist right now,  
25 and not what your personal beliefs are.

1           THE COURT: Hold on. Done. We're  
2 done. Give us a minute. Okay.  
3           I'm granting the Defense objection to  
4 the extrapolation.  
5           I want to thank you for your patience,  
6 especially, with me and trying to explain all of this  
7 to me. I could be wrong in my ruling, but I'm  
8 following some old case law that I've been familiar  
9 with for a long time. Thank you so much for your  
10 help today.  
11          THE WITNESS: Thank you.  
12          THE COURT: All right. Results come  
13 in; extrapolation does not.  
14          Are y'all ready for the jury?  
15          You can release the officer,  
16 probably -- unless there's anything else you needed  
17 him for.  
18          MR. SAWTELLE: I think that would have  
19 been it.  
20          THE COURT: That's all you needed in  
21 the record, right?  
22          MR. FLOOD: Yes, ma'am.  
23          THE COURT: Okay.  
24          THE BAILIFF: Please rise for the  
25 jury.

1           (Jury enters the courtroom)  
2           THE COURT: All right. You may be  
3 seated.  
4           Let the record reflect that the jurors  
5 have rejoined us. We have been, obviously, working  
6 on this, all day, outside your presence. And now, I  
7 think, we are ready to continue with you. And,  
8 hopefully, finish the evidence with you today, as  
9 well.  
10          All right. I don't believe this  
11 witness has testified in front of this jury yet, has  
12 she?  
13          MS. WILLIAMS: Yes, Your Honor.  
14          THE COURT: She did. So sorry, it's  
15 been hours. We did stop at that moment with No. 20  
16 being offered.  
17          MS. WILLIAMS: Yes, Your Honor.  
18          THE COURT: I caught up.  
19          All right. State's Exhibit No. 20 is  
20 admitted before the jury.  
21          You may proceed.  
22          MS. WILLIAMS: Thank you, Your Honor.  
23          May I publish?  
24          THE COURT: Yes.  
25

**DIRECT EXAMINATION (CONTINUED)**

BY MS. WILLIAMS:

Q. Okay. I believe this is where we last left. So, were you able to quantify the amount of -- sorry, the level of alcohol in the defendant's blood?

A. Yes.

Q. And did you follow all the protocols and methods mandated by your lab?

A. Yes.

Q. And are these the same protocols and method that are accepted by the scientific community as valid?

A. Yes.

Q. And so, was there any alcohol present in defendant's blood?

A. Yes.

Q. And how much alcohol was present in the defendant's blood?

A. 0.136, plus or minus 0.011 grams per 100 milliliters.

Q. All right. Are you aware, under Texas law, whether this is above or below the legal limit?

A. Yes.

Q. And what is the alcohol -- legal limit in Texas?

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A. 0.08 grams per 100 milliliters.

Q. All right. And lastly, after you report your findings, and you finish your analysis, what other quality assurance checks are completed in your lab to determine if this is an accurate report and result?

A. So after I report my findings, the case moves to a technical reviewer, who will look at the entire case as a whole; and once they believe that everything is okay, the results are acceptable, it will then move on to the expert reviewer of the case. And then, there will be an additional set of eyes that look over the entire case before it's released.

MS. WILLIAMS: All right. State passes the witness, Your Honor.

MR. FLOOD: May I, Your Honor?

THE COURT: Yes.

**CROSS-EXAMINATION**

BY MR. FLOOD:

Q. This blood sample was tested three times, right?

A. Yes.

Q. And it was tested on December 17th; is that correct?

A. Yes.

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1 Q. Of 2014?

2 A. Yes.

3 Q. And it was tested on 12/22/14?

4 A. Yes.

5 Q. And it was tested on 12/24/14, right?

6 A. Yes.

7 Q. Okay. And the 12/24 result was the number

8 that you reported, correct?

9 A. Yes.

10 Q. That's a .136?

11 A. Yes.

12 Q. What was the result from 12/17/14?

13 A. .128.

14 Q. .128. And now -- there's two vials taken

15 in this case, right?

16 A. Yes.

17 Q. And you labeled them A and B?

18 A. Yes.

19 Q. And this was the analysis from Vial A?

20 A. Yes.

21 Q. And this one that you reported was also an

22 analysis from the same exact vial, right?

23 A. Yes.

24 Q. .136 and .128 on the first run, correct?

25 A. Yes.

1 Q. And then, on this one you got a .139,

2 right?

3 A. Yes.

4 Q. And there were --

5 MR. FLOOD: May I approach the

6 witness, Your Honor?

7 THE COURT: Yes.

8 Q. (BY MR. FLOOD) I'd like to show you Defense

9 Exhibits 3 through 10 and just ask -- I think you've

10 looked at them before but -- ask if you remember them

11 or if they relate to the testing of this sample in

12 this case?

13 A. Yes.

14 Q. Okay. Now, it's the laboratory's -- you

15 have certain policies and procedures in place, that

16 in order to keep your accreditation, they must be

17 followed, right?

18 A. Yes.

19 Q. And one of those is that you're required to

20 report the lowest result, correct?

21 A. The lowest result that is within 5 percent

22 of another result.

23 Q. Okay. So, you got a 128 from Mr. Imrecke's

24 blood, right?

25 A. Yes.



1 Q. Okay. But you reported a 136?

2 A. Yes.

3 MR. FLOOD: Your Honor, I'd like to

4 show the State, Defense Exhibits 3 through 10 and ask

5 that they be admitted.

6 MS. WILLIAMS: State has no objection,

7 Your Honor.

8 THE COURT: And Defense 3 through 10

9 are admitted.

10 Have I seen 10? I don't remember. I

11 remember 9, but I'm --

12 MR. FLOOD: This is the 12/22 result.

13 THE COURT: Oh, yes. Thank you.

14 Defense 3 through 10 are admitted.

15 Thank you.

16 Q. (BY MR. FLOOD) You call gas chromatography

17 the gold standard, right?

18 A. I call -- yes. Headspace gas

19 chromatography for the analysis of ethanol.

20 Q. You call it the gold standard?

21 A. Yes.

22 Q. I'd like to show you Defense Exhibit No. 4.

23 This -- so, you run -- you talked about how important

24 it is, the quality controls working properly?

25 A. Yes.

1 Q. And you have standards, so this one right

2 here is, like, a 025, right?

3 A. Yes.

4 Q. And these are standards that are purchased

5 from an outside company, right?

6 A. Yes.

7 Q. And they're called "NIST" -- it's an

8 acronym -- NIST-traceable?

9 A. Yes.

10 Q. Meaning that, you know, we purchased this;

11 it should be exactly 025-alcohol concentration,

12 right?

13 A. Yes. Within a narrow range, yes.

14 Q. Okay. So, there's a 5-percent acceptable

15 range, right?

16 A. Well, this one is 10 percent, but the rest

17 are 5, yes.

18 Q. Right. So, the low one is 10 percent, and

19 everything else is the 5-percent acceptable range,

20 right?

21 A. Yes.

22 Q. Okay. So, on this one, we get an 027,

23 right, and that's within the acceptable range,

24 correct?

25 A. Yes.



1 Q. Okay. And then, on Defense Exhibit No. 5,  
2 you run different levels of alcohol concentrations  
3 through the machine to see if the machine is able to  
4 detect it properly, right? I'm not using the --  
5 probably, the exact scientific words that you would  
6 use, but it's a calibration, right?

7 A. Yes.

8 Q. And so, the machine only knows what you  
9 tell it, correct?

10 A. To a certain extent, yes.

11 Q. You can't just put something in the  
12 machine, and it says, Oh, I know exactly what this  
13 is. You have to introduce different levels of  
14 alcohol and say, I am putting in what I know is an  
15 05; and then, I'm telling you this is an 05, when you  
16 initially calibrate, right?

17 A. Yes.

18 Q. And so, before a batch runs, you calibrate  
19 it again just to make sure it's still reading  
20 everything accurately, right?

21 A. No, I don't calibrate it twice.

22 Q. But during each batch run, you calibrate?

23 A. Oh, yes. Yes.

24 Q. Obviously, you calibrated, right?

25 A. Yes.

1 Q. Okay. So, on the 05 standard, you see the  
2 range and this 047 to 052, that's in accordance with  
3 your lab's standard operating procedures, that say  
4 the standards must be within a 5-percent range,  
5 right?

6 A. Yes, for our reported reportable data, yes.

7 Q. Okay. But there's nothing in your lab that  
8 says there's any difference between, like, raw data  
9 and reportable data, it just says standards must be  
10 within 5-percent range, right?

11 A. Yes.

12 Q. So, you're saying that there's a difference  
13 between this data, which is a chromatogram, and then  
14 some other data. But your standard operating  
15 procedures doesn't differentiate between that, right?

16 A. Yes, that's correct.

17 Q. Okay. So, this is the data; it's  
18 introduced into the machine, and it produces a  
19 chromatogram, right?

20 A. Yes.

21 Q. And the data then -- these are peaks that  
22 show the ethanol and the n-propanol, which is the  
23 internal standard, correct?

24 A. Yes.

25 Q. And the way it comes up with a number, like

1 052, is it measures this area (indicating) under the  
2 peak, right?

3 A. Yes, that is one of the ways that it  
4 determines how much is there.

5 Q. Like, the bigger the peak, the higher this  
6 number (indicating) would be proportionally, right?

7 A. Yes, to a certain extent.

8 Q. So, if this was a much smaller peak -- so,  
9 basically, this peek right here (indicating), it  
10 measures how much space is under it, and it converts  
11 it and says, this is an 052 amount of alcohol,  
12 correct?

13 A. Essentially, yes.

14 Q. Okay. And then, we see here (indicating)  
15 that's -- at the top range is the range of the lab's  
16 acceptable range, correct?

17 A. Yes.

18 Q. Okay. But then, we're move to Defendant's  
19 Exhibit No. 6. And so, this is from the same batch  
20 on December 22; this is the .10 standard. So, you  
21 introduce the .10 standard into the machine, correct?

22 A. Yes.

23 Q. And it measures the area inside the peak,  
24 correct?

25 A. Yes.

1 Q. And it translates it to a number of .108,  
2 right?

3 A. Yes, that's the raw data.

4 Q. Okay. Well, you keep saying "raw data,"  
5 but going back to your standard operating  
6 procedures -- I want to clarify. There's no mention  
7 of any difference of this data versus any other data.  
8 It's chromatograms, and there's requirements that the  
9 standards be within 5-percent range, correct?

10 A. Yes.

11 Q. Is there a section in there that says, raw  
12 data doesn't have to be within 5 percent?

13 A. No. The raw data prints out as a result of  
14 the macro.

15 MR. FLOOD: Your Honor --

16 THE COURT: Hold on.

17 MR. FLOOD: I object to this --

18 THE COURT: Hold on.

19 MR. FLOOD: The answer is --

20 THE COURT: I asked you to hold on.

21 My turn.

22 When y'all talk at the same time, no  
23 one hears either of you and the court reporter bursts  
24 into flames right before us all.

25 And so, I'm going to ask that when

1 you're asked a question and you start to answer it,  
2 if either side says, "objection." I need you just to  
3 stop for me for a second, and then let me hear his  
4 objection. All right.

5 THE WITNESS: Okay.

6 THE COURT: So?

7 MR. FLOOD: My objection was  
8 nonresponsive to the reminder of that answer.

9 THE COURT: All right. And that is  
10 sustained.

11 MR. FLOOD: All right. And I won't do  
12 that again.

13 THE COURT: Thank you. Go on.

14 Q. (BY MR. FLOOD) So, the .10 read a .108.  
15 That is outside of the 5-percent range, correct?

16 A. Yes.

17 Q. Okay. And again, there's no -- your  
18 standard operating procedures don't differentiate  
19 between raw data and reportable data. This is the  
20 data that came --

21 MS. WILLIAMS: Objection. Asked and  
22 answered.

23 THE COURT: It's overruled.

24 Q. (BY MR. FLOOD) -- this is the data that  
25 came from the machine, when this batch was run,

1 correct?

2 A. Yes.

3 Q. Okay. And then, we look at Defense Exhibit  
4 No. 7. And this is the .20 standard. We're moving  
5 up, right? And the acceptable 5-percent range is  
6 from a 19 to a 21, correct?

7 A. Yes.

8 Q. I mean, again, these are the standards that  
9 you purchased from the third party, right?

10 A. Yes.

11 Q. And they actually come with certificates  
12 saying that we're verifying this is exactly .20,  
13 right?

14 A. Yes.

15 Q. Okay. And the machine, however, was  
16 reading it as a .216, correct, on this data right  
17 here (indicating), correct?

18 A. Yes.

19 Q. Okay. And that's outside of the standard  
20 operating procedures' range of 5 percent, correct?

21 A. Yes.

22 Q. Okay. So, that's two of the internal  
23 standards that were out of the 5-percent range,  
24 correct?

25 A. Based on the chromatogram that you just

- 1 showed with the raw data, yes.
- 2 Q. Okay. And you keep using that raw-data
- 3 word, right?
- 4 A. Yes.
- 5 Q. Which doesn't appear in the SOP at all?
- 6 A. Correct.
- 7 Q. So, this is Defense Exhibit No. 8. And the
- 8 data on this shows a .323 level of ethanol, correct?
- 9 A. Yes.
- 10 Q. And the range of acceptability for the
- 11 standard operating procedures is a maximum of a 315,
- 12 correct?
- 13 A. Yes.
- 14 Q. So, this is outside of that range,
- 15 according to your standard operating procedures on
- 16 this data, right?
- 17 A. Yes.
- 18 Q. Okay. Now, you've got that -- there's one
- 19 thing that we -- you've said that you've got to have
- 20 two numbers that are within 5 percent to report it?
- 21 A. Yes. Two values of the three have to be
- 22 within 5 percent, yes.
- 23 Q. Okay. So, you had a 128 from Vial A,
- 24 right?
- 25 A. Yes.

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- 1 Q. This was Vial B, correct?
- 2 A. Yes.
- 3 Q. And this is the one that you're saying was
- 4 within 5 percent?
- 5 A. Yes.
- 6 Q. Because this number (indicating) and this
- 7 number (indicating) is not within 5 percent, right?
- 8 A. Yes.
- 9 Q. And Mr. Imrecke's blood at a 12 is much
- 10 lower than a 13, right, outside the 5 percent range,
- 11 correct?
- 12 A. What was the question?
- 13 Q. These two numbers -- both from Vial A --
- 14 these two numbers were outside the 5-percent range,
- 15 right?
- 16 A. Yes.
- 17 Q. Even though they were from the exact same
- 18 vial?
- 19 A. Yes.
- 20 Q. Okay. But you went ahead and reported this
- 21 number right here (indicating), correct?
- 22 A. Yes.
- 23 Q. Because it matched up within 5 percent of
- 24 this number (indicating)?
- 25 A. Yes.

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1 Q. And this is the one that we just went over,  
2 that had the three out-of-range standards, correct,  
3 on the data that we looked at, correct?

4 A. Yes.

5 Q. And you're basing that test to make this  
6 one okay?

7 A. Basing?

8 Q. You're using this test, the one that we  
9 just looked at, all of the out-of-range standards,  
10 you're using this one to say this was within  
11 5 percent, and you're reporting this higher number;  
12 is that right?

13 A. Reporting the higher -- well, that number  
14 is lower than B.

15 Q. Right. This is the one that we had the  
16 problems with, but you're saying because it was  
17 within 5 percent, I'm going to go ahead and report  
18 this, correct?

19 A. I did report that. I'm not sure what your  
20 question is, I'm sorry.

21 Q. I'm just trying to say -- you've got to  
22 have two that are within 5 percent before you report  
23 it?

24 A. Yes.

25 Q. And the two you chose were from different

1 vials, right?

2 A. Yes, that's how it just turned out, yeah.

3 Q. And the one that you used to insert there  
4 (indicating) to get within that 5 percent, is this  
5 one right here (indicating) that we just looked at  
6 all those chromatograms from, right?

7 A. Yes.

8 Q. Okay. But the very first test that you had  
9 was the 128 on his blood, correct?

10 A. Yes.

11 Q. All right. Now, you said that it's  
12 important for the laboratory to follow strict

13 standards, correct?

14 A. Yes.

15 Q. And everything about what you're doing,  
16 it's -- what was the BAC -- is that BAC of 136 that  
17 you reported, is that the BAC from the time that  
18 Mr. Imrecke was operating the motor vehicle?

19 A. That is from the time that the blood was  
20 drawn.

21 Q. And do you know what time that was? Have  
22 you seen the pictures?

23 THE WITNESS: Can I refer to my notes,  
24 Judge?

25 THE COURT: Yes.



1 MR. FLOOD: Do you mind if I --

2 Q. (BY MR. FLOOD) Do you want me to show you

3 photos, or do you want to look at your notes?

4 A. I believe I have it in here.

5 Q. Okay.

6 A. On 12/13/14 at 2:36.

7 Q. And does that say the time of driving?

8 A. No. I don't -- I don't have that

9 information.

10 Q. Okay. So, without -- here we go. I'd like

11 to show you State's Exhibit No. 12, can you read this

12 time on there?

13 A. It looks like 1:41.

14 Q. That's correct, 1:41. So, can you tell me

15 what the BAC was at 1:41?

16 MS. WILLIAMS: Objection, Your Honor.

17 Outside the scope, outside the witness' stated

18 expertise.

19 THE COURT: I bet you can say "no" to

20 that question, then.

21 A. Yes. I can say, no, to that question.

22 THE COURT: That objection is

23 sustained.

24 MR. FLOOD: Okay. I'll pass the

25 witness.

1 THE COURT: Thank you.

2 MS. WILLIAMS: Brief redirect, Your

3 Honor.

4 THE COURT: Go on.

5 MS. WILLIAMS: Thank you.

6 May I approach the reporter for some

7 exhibits?

8 THE COURT: Yes, ma'am.

9 MS. WILLIAMS: Thank you.

10 **REDIRECT EXAMINATION**

11 BY MS. WILLIAMS:

12 Q. Throughout your testimony with the defense,

13 you mentioned this idea of raw data. What does raw

14 data mean, and why was it pertinent in regards to

15 your previous testimony?

16 A. Well, the raw data is just what the

17 instrument -- it's -- so when I'm creating a

18 calibration curve, it consists of six standards. And

19 as he did mention, they are of a known concentration.

20 But our instrument is unique, in the sense that, it

21 is building that calibration curve, to determine our

22 range of acceptable values that we're able to detect

23 on the instrument, as it's running those curves -- I

24 mean, running those standards. I'm sorry.

25 And so, the raw data is just -- the



1 instrument will take the first standard: it's  
2 injected; it prints it out. So, that printout of  
3 that standard is not all encompassing, in the sense  
4 that, the last -- the sixth standard hasn't been  
5 injected, yet, to be including in this curve to  
6 develop that range to develop our ethanol results for  
7 the case, for example.

8 MS. WILLIAMS: Your Honor, at this  
9 time, can I publish Defense 3 through 10?

10 THE COURT: Yes.

11 Q. (BY MS. WILLIAMS) All right. So, looking  
12 here at Defense Exhibits No. 3 -- and I'm going to --  
13 now that we've gone -- I'll go in a little bit  
14 closer. What is Defense No. 3?

15 A. This is the chromatogram or the printout of  
16 the injections of one of the case samples associated  
17 with this case. So, it's the Tube A. As I mentioned  
18 before, it's the first tube that we run to screen --  
19 to detect if there's any ethanol or blood alcohol  
20 present.

21 Q. And now getting to the specific tube that  
22 defense brought up to you, in terms of issues, this  
23 is Defendant's Exhibit No. 4. What is this?

24 A. So that's the first standard that is used  
25 in the calibration curve that I referred to earlier.

1 Q. And so, on this one that the defense showed  
2 you, was this curve that you tested the defendant's  
3 blood against?

4 A. This -- so this vial was used on the curve,  
5 but this value is just the raw data. And so, this  
6 value was calculated, not including all of the  
7 standards, yet, because they hadn't been injected.

8 Q. So, essentially -- and correct me if I get  
9 you wrong. This value was created before the  
10 instrument had been calibrated for that day with the  
11 proper standards?

12 A. Yes.

13 Q. In looking at Defendant's Exhibit No. 5 --  
14 and I'll move it right here. What is this?

15 A. This is the second standard that is used to  
16 develop the calibration curve.

17 Q. And so, is this what you refer to as raw  
18 data?

19 A. Yes.

20 Q. And so, when this was printed out, had the  
21 instrument been properly calibrated using the six  
22 standards for that day?

23 A. At this point, it's the second standard out  
24 of the six; so, there were four more -- additional --  
25 that had I to run.

1 Q. And on Defendant's Exhibit No. 6, is this  
 2 the raw data that you mentioned?  
 3 A. Yes.  
 4 Q. And so, as of yet, when this was run, had  
 5 all six standards been properly introduced into the  
 6 instrument?  
 7 A. No.  
 8 Q. So, at that time, was the instrument  
 9 properly calibrated?  
 10 A. No.  
 11 Q. Defendant's Exhibit No. 7, is this the raw  
 12 data that you mentioned -- described to the jury?  
 13 A. Yes.  
 14 Q. And so, as of this time, had all the  
 15 standards been introduced into the instrument for  
 16 that day to make it properly calibrated?  
 17 A. No.  
 18 Q. All right. Defendant's Exhibit No. 8.  
 19 Once again, is this the raw data that you explained  
 20 to the jury?  
 21 A. Yes.  
 22 Q. And is there, yet, one more standard that  
 23 needed to be introduced into the instrument?  
 24 A. Yes.  
 25 Q. And so, was it at this time properly

1 calibrated for the day?  
 2 A. No.  
 3 Q. So, my next question is: Can you explain  
 4 to the jury whether any of those exhibits are  
 5 relevant -- were relevant in your determination of  
 6 what his blood-alcohol concentration was?  
 7 A. No.  
 8 Q. And why not?  
 9 A. Because they are not the calculated values  
 10 that created the calibration curve, which was used to  
 11 calculate the amount of ethanol in the tubes  
 12 associated with this case.  
 13 Q. Okay. And so, let me bring your attention  
 14 to State's Exhibit No. -- oh, what am I doing?  
 15 Defendant's Exhibit No. 5, are you  
 16 able to tell what time that sample was analyzed --  
 17 sorry -- what time that standard was analyzed?  
 18 A. Yes.  
 19 Q. And what time is that?  
 20 A. The data was acquired at 8:04 and it's on  
 21 the -- yes.  
 22 Q. Okay. And so, that's when the data was  
 23 acquired?  
 24 A. Yes.  
 25 Q. Okay. And looking at Defendant's Exhibit

1 No. 6, what time was that data acquired?  
2 A. 8:12.  
3 Q. And so, without wasting any more time going  
4 through all those exhibits, as far as that first run,  
5 would we expect that each of them would be at a  
6 different time?  
7 A. Yes.  
8 Q. And why is that?  
9 A. Because as I mentioned earlier, the curve  
10 it's creating -- the calibration curve -- as the  
11 instrument is running and collecting that data. And  
12 so, the time that it's acquiring -- as it's acquiring  
13 the data, it's updating the calibration up until the  
14 last standard. And then, from there --  
15 MS. WILLIAMS: Your Honor, may I  
16 approach the witness?  
17 THE COURT: Yes, ma'am.  
18 Q. (BY MS. WILLIAMS) So, I have here what's  
19 been previously marked as State's Exhibit Nos. 21  
20 through 26. Do you recognize these?  
21 A. Yes.  
22 Q. And are these graphs made in the ordinary  
23 course of business for your lab?  
24 A. Yes.  
25 Q. Anything been altered or changed or

1 tampered with since these tests were done?  
2 A. No.  
3 MS. WILLIAMS: Your Honor, at this  
4 time State moves to admit State's Exhibit 21 through  
5 26.  
6 May the record reflect that I am  
7 tending to opposing counsel.  
8 MR. FLOOD: No objection.  
9 THE COURT: State's 21 through 26 are  
10 admitted, for purposes of the jury now.  
11 MS. WILLIAMS: Your Honor, may I  
12 publish?  
13 THE COURT: Yes, ma'am.  
14 Q. (BY MS. WILLIAMS) Now we are looking at  
15 State's Exhibit 21, what is this?  
16 A. That is the first standard.  
17 Q. By the time this standard was run, had been  
18 instrument been properly calibrated?  
19 A. Yes. Well -- so, this standard was run at  
20 7:56, but the instrument wasn't calibrated. Meaning  
21 that, it didn't collect all six data points until  
22 8:40 a.m., which is under the last calibrated.  
23 Q. (Pointing to last calibrated).  
24 A. Yes.  
25 Q. So here, looking at the range, it says .022

1 to .027 and the ethanol says .024, is that within the  
2 allowable range?  
3 A. Yes.  
4 Q. And so, you mentioned earlier that in order  
5 to do these analysis, you begin to build a sort of  
6 curve; is that correct?  
7 A. Yes.  
8 Q. And so, is this the beginning of that  
9 curve?  
10 A. Yes.  
11 Q. State's Exhibit No. 22, what is this?  
12 A. That is the second standard that's used in  
13 the calibration curve.  
14 Q. And it states that the range is a .047 to  
15 .052 and has the ethanol amount of .047, is that in  
16 the allowable range?  
17 A. Yes.  
18 Q. And so, are we still continuing to build  
19 that curve that you mentioned earlier?  
20 A. No. Because at this point, the sixth  
21 standard has already been injected. And so, all of  
22 the calibration points are complete. And so, if you  
23 notice, it still will have that same time for the  
24 last calibrated. So, this is the data that can be  
25 used to report the result, as opposed to the raw

1 data, that I was referring to earlier.  
2 Q. Okay. I believe you made a response to  
3 reportable data, is that what this is?  
4 A. Yes.  
5 Q. And this is State's Exhibit No. 23 --  
6 excuse the 3 -- and what is this?  
7 A. That's the third standard used in the  
8 calibration.  
9 Q. And it says the range is the .095 to .105  
10 and the ethanol is a .098, is this within the  
11 allowable range?  
12 A. Yes.  
13 Q. State's Exhibit No. 24, what is this?  
14 A. That's the fourth standard.  
15 Q. And once again, it says the range is .190  
16 to a .210 has the ethanol within the .197, is that  
17 within the allowable range?  
18 A. Yes.  
19 Q. State Exhibit No. 25 -- and you let me know  
20 if I need to make it a little closer for you. Are  
21 you able to identify what this is?  
22 A. Yes, that's the fifth standard.  
23 Q. And it says the range is a .285 to a .315  
24 and has the ethanol level at a .296, is that within  
25 the allowable range?

- 1 A. Yes.
- 2 Q. All right. State's Exhibit No. 26, are you
- 3 able to identify what this is?
- 4 A. Yes, that's the final standard that's used
- 5 for the calibration curve.
- 6 Q. And it says the range is .38 to a .420 and
- 7 has ethanol level at a .404, is that within the
- 8 allowable range?
- 9 A. Yes.
- 10 Q. So, when you tested the defendant's blood,
- 11 it had been properly calibrated as established by the
- 12 standards we just saw?
- 13 A. Yes.
- 14 Q. Okay. And so, there's been this question
- 15 of raw data versus reportable data, is that a
- 16 terminology and a practice that's used within your
- 17 lab?
- 18 A. Yes -- well, it was at this time.
- 19 Currently -- so, the raw data that prints out is,
- 20 essentially, it has to do with the programming of the
- 21 computer. And so, currently, we no longer have raw
- 22 data.
- 23 Q. Okay. So, now you only have the reportable
- 24 data; is that correct?
- 25 A. Yes. But at the time of this case, we did

- 1 use raw data -- or include it in our data packets.
- 2 Q. Okay. And that was the procedure used
- 3 within your office?
- 4 A. Yes.
- 5 Q. And had it been used for some time?
- 6 A. Yes.
- 7 Q. And throughout that time, were you able to
- 8 retain -- you said three accreditations?
- 9 A. Yes.
- 10 Q. And so just so I can make, you know --
- 11 correct me if I'm wrong. Once again, it seems as if
- 12 that first -- the first exhibits we saw with the
- 13 defendant's exhibits, is that when the instrument is
- 14 initially turned on and beginning to go through the
- 15 process of being about to be calibrated before you
- 16 put in the standards?
- 17 A. I'm not sure what you are referring to.
- 18 Q. So you mentioned that there's six standards
- 19 that you need to introduce into the instrument before
- 20 it's completely calibrated?
- 21 A. Yes.
- 22 Q. The results that we saw, as far as
- 23 Defendant's Exhibits 5 through 10 [sic], at that time
- 24 had the standards been properly introduced?
- 25 A. No, not completely.



1 Q. So, the instrument, at that time, was not  
 2 properly calibrated?  
 3 A. Correct.  
 4 Q. And were those standards -- were  
 5 Defendant's Exhibit 6 through 10, were those the  
 6 standards you tested the defendant's blood against?  
 7 A. Standards six through ten? No, I'm not  
 8 sure --  
 9 Q. Okay. So, at that time before those  
 10 standards had been introduced into the instrument,  
 11 you had not analyzed the defendant's blood?  
 12 A. Correct.  
 13 MS. WILLIAMS: Oh -- a few more  
 14 questions, Your Honor, if you don't mind.  
 15 Q. (BY MS. WILLIAMS) So, the first run came  
 16 back at a .128; is that correct?  
 17 A. Yes.  
 18 Q. And so, it's necessary for you to make more  
 19 than one run; is that correct?  
 20 A. Yes.  
 21 Q. And so, you then -- did you then test Tube  
 22 B?  
 23 A. Yes.  
 24 Q. And that's when you got this .139?  
 25 A. Yes.

1 Q. And when you ran Tube B, that was the tube  
 2 we were just discussing all these exhibits about,  
 3 correct?  
 4 A. Yes.  
 5 Q. And so, when the instrument was properly  
 6 calibrated, were there any issues, as far as level of  
 7 the range or the proper range?  
 8 A. No.  
 9 Q. And so, this was a properly conducted  
 10 analysis?  
 11 A. Yes.  
 12 Q. All right. And so -- so, why did you,  
 13 then, have to run a third test?  
 14 A. I ran a third test because our strict  
 15 standard operating procedures require that the two  
 16 results must lie within 5 percent of one another.  
 17 And so, in this case, they were outside of our  
 18 5-percent range; so, I was required to perform a  
 19 third test.  
 20 Q. And do you know whether or not that's done  
 21 in the benefit of the subject, that you require that  
 22 5 percent, that closeness between your two runs?  
 23 A. It's -- I'm not sure why 5 percent was  
 24 determined, but I know it's very strict. And I do  
 25 know that, typically, 7 to 10 percent is the range



- 1 that's allowed at other labs.
- 2 Q. So, your lab has a higher standard?
- 3 A. Yes.
- 4 Q. So, did you then have to do a third run?
- 5 A. Yes.
- 6 Q. And was .136 the result of that third run?
- 7 A. Yes.
- 8 Q. And so, after those three runs, by policy
- 9 and procedure, in order to keep your lab's
- 10 accreditations, what result are you then required to
- 11 report?
- 12 A. I'm required to report the lowest value
- 13 that's within 5 percent of another value.
- 14 Q. And so, in order to keep your accreditation
- 15 in order to follow your lab's policies, you could not
- 16 report this .128 number; is that correct?
- 17 A. Correct.
- 18 Q. And is that because you couldn't be
- 19 absolutely sure of the accuracy of that number, based
- 20 on your lab's procedures and standards?
- 21 A. It really just comes down to, it's required
- 22 by the standard operating procedures; and as an
- 23 employee, I'm required to follow the standard
- 24 operating procedures.
- 25 Q. Okay. And so, out of run two and run

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- 1 three, what was the lowest amount?
- 2 A. The .136.
- 3 Q. And is that the number that you reported?
- 4 A. Yes.
- 5 Q. And throughout the actions that you took in
- 6 analyzing the blood and ensuring that the instrument
- 7 was properly calibrated, you followed the policies
- 8 and procedures?
- 9 A. Yes.
- 10 Q. And after you went through all those
- 11 policies -- all those safe checks, was your work then
- 12 checked again by someone else in the lab?
- 13 A. Yes.
- 14 Q. Is it just one individual, or do your
- 15 results go through several other individuals?
- 16 A. It would be at least two other individuals.
- 17 Q. And at any time, did anyone bring it to
- 18 your attention that any issues had occurred with your
- 19 analysis or with your instrument, at the time of the
- 20 test?
- 21 A. No.
- 22 Q. And to your knowledge, those two
- 23 individuals are also properly following the protocols
- 24 and procedures of the lab?
- 25 A. Yes.

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1 MS. WILLIAMS: State passes the  
2 witness, Your Honor.

3 THE COURT: Mr. Flood.

4 MR. FLOOD: Thank you.

5 **RECROSS-EXAMINATION**

6 BY MR. FLOOD:

7 Q. I want to clarify something. Okay. You  
8 said that the documents that you gave defense showing  
9 the out-of-range standards, are no longer going to be  
10 produced to defense counsel anymore; is that correct?

11 A. The raw data.

12 Q. Okay. I'm talking about raw data doesn't  
13 show up anywhere in your SOP, right?

14 A. Yes.

15 Q. So, the data that showed the out of range  
16 numbers, you're saying that the lab has changed and  
17 is longer going to produce that in discovery; is that  
18 what I heard correctly, yes or no?

19 A. No.

20 Q. What did you say?

21 A. Can I explain it?

22 Q. Well, are you saying there's a change in  
23 the laboratory, though, on what you're going to  
24 produce and that's not going to be produced anymore?

25 A. No. Can I explain it?

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1 Q. Okay.

2 A. So our laboratory requires that we submit  
3 or turn in everything that's printed from our  
4 instrument. At this time, the raw data was printed.  
5 We no longer -- that data is no longer printed; so,  
6 we don't have why chromatograms associated with that.

7 Q. Okay. So, I used the wrong words. So,  
8 there's been a change where any errors like that  
9 won't be able to be seen anymore, correct?

10 A. No.

11 Q. I'd like to ask you a question about one of  
12 these. For example, this 02 -- I'm sorry, Defense  
13 Exhibit 4, this a chromatogram. And, you know, on  
14 the chromatography machine, it has, like, a carousel,  
15 and then it has vials in it. And once you start it  
16 to run, there's sort of, like, a robotic arm, which  
17 will pick up a sample -- or get the sample and insert  
18 it in the machine over and over until that whole  
19 batch is done, right?

20 A. Yes.

21 Q. And so, to generate a chromatogram like  
22 this, it's not something that -- I mean, it happens  
23 because, like, this says vial one of one, right, Tray  
24 1, Vial 1?

25 A. Yes.

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1 Q. So, that was the first vial in that batch,  
 2 that day, at that time, right?

3 A. Yes, as far as the calibration curve.

4 Q. And I just wanted it to be clear. It's not  
 5 just making up some calibration from yesterday or  
 6 another time. The machine, actually, took a sample  
 7 of what was supposed to be .025 and injected it into  
 8 the machine, right? That's the only way to get a  
 9 chromatogram, right? It tested the 025 standard,  
 10 Tray 1, Vial 1, right?

11 A. Yes, it's an injection of the .025  
 12 standard.

13 Q. And it read it as an 027, correct?

14 A. Yes.

15 Q. Okay. And so, when you go to the Defense  
 16 Exhibit 6, the machine, Tray 1, Vial 3, of the same  
 17 batch, it took a sample and the needle, and it  
 18 injected it into the injection port of the machine,  
 19 correct?

20 A. Yes.

21 Q. And it produced a result of a .108, right?

22 A. Yes.

23 Q. Okay. So, this is really happening in that  
 24 batch: samples are going into the machine, there's a  
 25 signal given to the flame ionization detector, and

1 then this is the amount that it is being converted to  
 2 .108, right?

3 A. Yes.

4 Q. Okay. And so, it's reading a .10, which  
 5 you know is that NIST-traceable standard. And it's  
 6 reading it at a .108, which is higher than a .10,  
 7 correct?

8 A. Yes.

9 Q. Okay. Now, just real quick, I don't want  
 10 to get too technical with this. But this response,  
 11 is that another way of saying, what the area that  
 12 lies inside this peak?

13 A. Yes.

14 Q. How big of a response did you get, right?

15 A. Yes.

16 Q. Okay. So, this number is what the machine  
 17 takes, and then it translates it into this number,  
 18 correct?

19 A. I know that that's part of it. I'm not  
 20 sure if that's --

21 Q. Well, I'm saying that this number  
 22 (indicating) is a result of the area count of the  
 23 peaks, correct, the response?

24 A. It's a result of the area count, as well  
 25 as, it's based on the calibration.

1 Q. Right. So, this is 690646, right?

2 A. Yes.

3 Q. If that was 590646, then, this would be a

4 lower number, right?

5 A. Yes.

6 Q. If this said 990646, it's a larger

7 response; so, this would be higher than .108, right?

8 A. Yes.

9 Q. Okay. So, this response is directly

10 related to that number, right?

11 A. It's somewhat, but it also depends on the

12 calibration.

13 Q. Right.

14 A. Which is why this is referred to as raw

15 data.

16 Q. Okay. So, that's why they're different

17 ethanol amounts in different vials. And, say,

18 there's different subjects running in that machine,

19 you know, everybody might not have the same amount of

20 alcohol in their blood, right?

21 A. Yes.

22 Q. Okay. And so, you expect to get different

23 ethanol readings, right?

24 A. Yes.

25 Q. And you're going to see different response

1 numbers, correct?

2 A. Yes.

3 Q. Okay.

4 MR. FLOOD: I'll pass the witness.

5 MS. WILLIAMS: I'll make it brief,

6 Your Honor.

7 THE COURT: All right.

8 **FURTHER REDIRECT EXAMINATION**

9 Q. (BY MS. WILLIAMS) So, this raw data -- you

10 mentioned that the instrument is no longer going to

11 be reporting that. Is that because it's some large

12 error on the lab's part?

13 A. No.

14 Q. Is this part of some scheme to hide this

15 evidence from defense attorneys?

16 MR. FLOOD: Objection. These are

17 leading questions. Objection. Leading.

18 THE COURT: That's sustained.

19 Rephrase.

20 Q. (BY MS. WILLIAMS) Is this done with some

21 intent to not provide that evidence to --

22 MR. FLOOD: Objection --

23 Q. (BY MS. WILLIAMS) Why are these reports no

24 longer being printed?

25 A. I am not sure of the complete reason

1 because it is -- this is more of -- something that  
2 has to do with our quality department. And so, they  
3 would be the ones that would be better suited to  
4 answer the question.

5 Q. Okay. In your experience, though, is this  
6 raw data applicable, in terms of the analysis -- the  
7 reliability of the blood analysis?

8 A. No.

9 MS. WILLIAMS: No further questions,  
10 Your Honor.

11 MR. FLOOD: I pass the witness, Your  
12 Honor.

13 THE COURT: All right. May this  
14 witness be excused?

15 MS. WILLIAMS: Yes, Your Honor.

16 MR. FLOOD: Yes, ma'am.

17 THE COURT: All right.

18 Thank you, ma'am, you are finally free  
19 to go.

20 (Excerpt testimony concluded)

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1 STATE OF TEXAS  
2 COUNTY OF HARRIS

3 I, Ramona St. Julian-Sonnier, Official Court  
4 Reporter in and for County Criminal Court at Law  
5 Number Five (5) of Harris, State of Texas, do hereby  
6 certify that the above and foregoing contains a true  
7 and correct transcription of all portions of evidence  
8 and other proceedings requested in writing by counsel  
9 for the parties to be included in this volume of the  
10 Reporter's Record in the above-styled and numbered  
11 cause, all of which occurred in open court or in  
12 chambers and were reported by me.

13 I further certify that this Reporter's Record of  
14 the proceedings truly and correctly reflects the  
15 exhibits, if any, offered by the respective parties.

16 WITNESS MY OFFICIAL HAND on this, the 27 day of  
17 February, 2016.

18 /s/Ramona St. Julian-Sonnier  
19 Ramona St. Julian-Sonnier, CSR  
20 Texas CSR 6070  
21 Official Court Reporter, CCCL No. 5  
22 Harris County, Texas  
23 1201 Franklin, 9th Floor  
24 Houston, Texas 77002  
25 Telephone: 713-755-6196  
Expiration: 12/31/2017

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1 the time on the same grounds, you know, just for the  
2 record.

3 MR. MOSS: Both of our witnesses are  
4 here, judge.

5 THE COURT: All right.

6 THE BAILIFF: All rise for the jury.

7 (The jury entered the courtroom)

8 THE COURT: Please, be seated.

9 Call your next, please.

10 MR. MOSS: The state calls Dr. Guale.

11 (witness sworn)

12 THE COURT: Proceed, please.

13 MR. MOSS: May I proceed, Your Honor?

14 THE COURT: Yes.

15 FESSESSEWORK GUALE

16 was called as a witness and having been first duly  
17 sworn, testified as follows:

18 DIRECT EXAMINATION

19 **QUESTIONS BY MR. MOSS:**

20 Q. Will you, please, state your name for the  
21 record?

22 A. Fessessework Guale.

23 Q. And, Ms. Guale, how are you employed?

24 A. Excuse me?

25 Q. Who are you employed by?

1 A. Who am I hired by?

2 Q. Yes, ma'am.

3 A. Okay. It is the Harris County Institute of  
4 Forensic Sciences.

5 Q. And what is your role at that institution?

6 A. Right now I am the assistant chief  
7 toxicologist.

8 Q. And as an assistant chief toxicologist, what  
9 are some of your duties?

10 A. One of my duties is to make sure that the  
11 day-to-day operation of the laboratory is correct, and  
12 I have to make sure that the cases coming in and going  
13 out on the right time, and I supervise the employees  
14 or all of the analysts that are in the lab. I do, you  
15 know, make the developments and projects and  
16 presentations and papers and so many things that we  
17 do.

18 Q. Do you also in that role analyze data of  
19 blood samples?

20 A. Yes.

21 Q. What type of training and education have you  
22 had to qualify you for that?

23 A. Well, in addition to my doctorate's degree in  
24 veterinary medicine, I have a master's degree in  
25 toxicology; and what it does is they indicate to us

1 about the affects of drugs and other toxins in your  
2 body, their chemistry and what their behavioral  
3 outcome is and what the physical affect is; and every  
4 process once the drug gets into your system until it  
5 is out.

6 Q. And do you have any sort of, I guess,  
7 training?

8 Did you do training for this?

9 A. Yes. We do have several continuing education  
10 training. We do hold and we go and participate in  
11 workshops like in forensic toxicology; and we hold one  
12 in ourselves inviting a lot of toxicologists to learn;  
13 and we go for workshops, conferences, international  
14 conferences and just like that; and we are one of the  
15 pioneers in organizing and setting up training for  
16 other individuals.

17 Q. And how long have you been with the Institute  
18 of Forensic Sciences?

19 A. Six years.

20 Q. Have you held that role or at least part of  
21 your duties been in toxicology that entire time?

22 A. Yes. Ever since I started, I started as a  
23 Toxicologist 2 which I was doing section leading. I  
24 was leading one section; and then I became a manager;  
25 and then I have another, you know, position open; and

1 then I get promoted to assistant chief toxicologist.

2 Q. And you said that you work for the Institute  
3 of Forensic Sciences, right?

4 A. Correct.

5 Q. What exactly does the Institute of Forensic  
6 Sciences do?

7 A. We do take samples from different law  
8 enforcement agencies in Harris County and the  
9 surrounding areas, and also we perform personal  
10 toxicology for the medical examiner. So we do have  
11 two different sections, but we do DWI or drug sexual  
12 assault and drug toxicology.

13 Q. One of the roles of the forensic scientist is  
14 to analyze blood?

15 A. Correct.

16 MR. MOSS: May I approach the witness,  
17 Your Honor?

18 THE COURT: You may.

19 Q. (By Mr. Moss) Dr. Guale, I am going to show  
20 you what has been previously marked as State's Exhibit  
21 No. 3.

22 What exactly is this?

23 A. This is -- I received two blood tubes  
24 containing blood in a box.

25 Q. Now, do you have any sort of indication on



1 there that your office received and analyzed this  
2 blood?

3 A. Yes, because the data that I have here in  
4 front of me that I brought from the lab matches all of  
5 the numbers -- the unique identifying number matches  
6 with what is on the tubes.

7 Q. And is the tape that we see on here on the  
8 outside box, is that tape from your office?

9 A. Yes. This is Andre Salazar. It is taped and  
10 signed by Andre Salazar. That is one of our analysts  
11 who opened the box.

12 Q. Is there a date on there?

13 A. Yes, the date is 10-18-2010.

14 Q. Now, when they put that tape and date it and  
15 put their initials on it, what are they doing?

16 A. That means they opened it at one time to take  
17 out the blood sample for analysis; and they put it  
18 back; and then when they put it back, they taped it  
19 back and signed their signature on it.

20 Q. And we see another date on there?

21 A. Yes, 10-22-2010.

22 Q. And then if we look at the box on the inside,  
23 is there also tape on that box?

24 A. Yes.

25 Q. And the first initials and date, who is that



1 person?

2 A. That person is Andre Salazar. It is the same  
3 person that is on the out box, and the bottom  
4 was -- it is very hard to see. It looks like  
5 J-O-D-C-A. Yes, it is very hard to see.

6 Q. And what is the date if you will look right  
7 there?

8 A. Okay, 10-22 or 26.

9 Q. 10-26?

10 A. Yes.

11 Q. Now, whenever somebody takes out the blood  
12 and cuts it open and tapes it back, do they make a  
13 record of that?

14 A. Yes, and it is electronically also saved  
15 through our laboratory information management system.

16 Q. And did you at the end of all of this  
17 testing, did you take the raw data and turn it into --  
18 did you analyze it and make a conclusion; or were you  
19 able to accumulate that data and make that report?

20 THE COURT: Did you say what year?

21 THE WITNESS: 2010.

22 THE COURT: You said at the end of?

23 MR. MOSS: At the end of collecting the  
24 raw data, was she able to take the raw data and  
25 analyze it?

1           A.   Once the analyst performs the blood sample  
2           and puts it on the instrument, then the instrument  
3           will put out the report about the result of that  
4           analysis.

5                     That report is included in this folder;  
6           and then that report is signed by the analyst who  
7           performed the test; and all of that is combined; and  
8           then when the case is done, it comes to a technical  
9           reviewer; and then the technical reviewer will go  
10          through the data and make sure that the data is  
11          produced properly, the chain of custody is done  
12          properly and the standard operation procedure is  
13          followed; and then once they make sure of that, they  
14          sign it on the form, that is the technical reviewer.

15                    Once the technical review is done, then  
16          it comes to the administrator or the expert reviewer  
17          to see whether that report is correct in correct  
18          toxicology; and then it will be signed out.

19          Q.    (By Mr. Moss) So in essence are you the  
20          technical reviewer in this case?

21          A.    No. I am the expert reviewer on this case.

22          Q.    The expert reviewer?

23          A.    Right.

24          Q.    So whenever you get this data to review it,  
25          you go in and ensure all of the other things are done

1 correctly before it gets to you?

2 A. Yes.

3 Q. And you have paperwork to do that?

4 A. Yes.

5 Q. Now, State's Exhibit No. 3 and its contents,  
6 are these -- this data on these tubes and this box  
7 match the data that you have in your file?

8 A. The unique identifying number that is on the  
9 report which is JAJ-10-009245 is on these blood tubes.  
10 JAJ-10-009245, that would be correct.

11 Q. And I am going to show you what is marked as  
12 State's Exhibit Nos. 6, 7, 8 and 9.

13 Do you know what those documents are?

14 A. This is a certificate of analysis by Crystal  
15 Arndt, a certificate of analysis by Paola Alexandra  
16 Velasco, a certificate of analysis by Andre Salazar  
17 and a certificate of analysis by Jameaker Dumas.

18 Q. Do those four certificates of analysis, are  
19 they the same unique number that you have in this  
20 case?

21 A. Yes, all of them do contain the same, the  
22 unique identification number of the exhibit that is  
23 presented here and correct.

24 Q. And so by those records, were you able to  
25 establish that this is the same tube that was tested

1 by your office?

2 A. Correct.

3 MR. MOSS: At this time, Your Honor, the  
4 state will introduce into evidence State's Exhibit  
5 No. 3 and its contents which is the blood and States's  
6 Exhibits 6 through 9 which are certificates of  
7 analysis which have been on file for the requisite  
8 period of time; and I will tender them to the defense  
9 counsel for any objections.

10 MR. GLASS: Your Honor, I am going to  
11 object to --

12 THE COURT: Hang on a second.  
13 Nos. 6 through 9 and?

14 MR. MOSS: No. 3 and its contents.

15 MR. GLASS: Your Honor --

16 THE COURT: Okay. Never mind.  
17 Okay, Nos. 3, 6, 7, 8 and 9?

18 MR. MOSS: Yes, Your Honor.

19 THE COURT: Yes, Mr. Glass.

20 MR. GLASS: May I have just a moment,  
21 judge?

22 THE COURT: Yes.

23 MR. GLASS: Judge, may I approach?

24 THE COURT: Uh-huh.

25 (At the bench, on the record)



1                   MR. GLASS: My objections to these lie in  
2 the fact that first of all, we don't get to  
3 cross-examine. They are affidavits of certificates.  
4 We don't gets to cross-examination. We are denied our  
5 right to cross-examination.

6                   Secondly, they contain conclusions that  
7 were by the laboratory. We don't know what procedures  
8 were used. In the absence of being able to  
9 cross-examine these people, we don't feel like these  
10 certificates properly satisfy the required  
11 constitutional requirement that we be allowed to  
12 confront and cross-examine the persons who allegedly  
13 did these analyses.

14                  THE COURT: Mr. Moss.

15                  MR. MOSS: Our response would be that  
16 they were put on file in March of 2012. We gave a  
17 copy to the defense counsel, and there was no written  
18 objections within ten days as specified by the code.

19                  MR. GLASS: My belief, judge, is that the  
20 Constitution supercedes the code as far as the  
21 confrontation and cross-examination goes.

22                  THE COURT: I was going to ask if you  
23 want to make it anymore clear as to those certificates  
24 of analysis.

25                  MR. MOSS: I can do that.



1 THE COURT: Okay. Your objection is only  
2 as to Nos. 6 through 9 and not as to No. 3.

3 MR. GLASS: Which one was No. 3, judge?

4 THE COURT: The vials.

5 MR. GLASS: I don't think that there is  
6 any problem with the chain of custody.

7 (Proceedings in open court)

8 THE COURT: State's 3 is admitted at this  
9 time.

10 Q. (By Mr. Moss) Where did you -- looking at  
11 these certificates of analysis, does your analysts do  
12 these in the normal course of business?

13 A. Yes.

14 Q. What exactly is a certificate of analysis?

15 A. This is an affidavit of a person who performs  
16 the test, that the test was performed by them; and  
17 that they followed the normal procedure as much as  
18 their ability and the result is correct.

19 Q. Looking at the four names on these, Crystal  
20 Arndt, Andre Salazar, Jameaker Dumas and Paola  
21 Alexandra Velasco, these four people, are they  
22 employed by your office?

23 A. Yes.

24 Q. Do the four names in these certificates of  
25 analysis match the names that are in your records?

1           A. Yes, each data is signed by them. The data  
2 that is in this case folder is signed by them. Like,  
3 for instance, if I may. This data like the alcohol  
4 data was signed by JOD that is her signature which is  
5 Jameaker Dumas.

6           Q. So looking at the data that we have?

7           A. Yes. Right here that is the basic drug  
8 screen that was loaded on the instrument by Crystal  
9 Arndt.

10          Q. And what date was that?

11          A. 10-26.

12          Q. And is it the same date as in State's  
13 Exhibit 6?

14          A. Yes.

15          Q. And then Andre Salazar?

16          A. Andre Salazar took the sample or pulled the  
17 sample for alcohol analysis on 10-18-10.

18          Q. And is that the same as in State's Exhibit 8?

19          A. Correct.

20          Q. And then Ms. Dumas?

21          A. Jameaker Dumas, she pulled another alcohol  
22 analysis for a confirmation analysis for the alcohol  
23 on 10-21.

24          Q. And is that the same date as we are talking  
25 on this case?

1 A. Yes.

2 Q. I am sorry, State's Exhibit No. 9?

3 A. Yes.

4 Q. And then finally Paola Alexandra Velasco?

5 A. Paola Alexandra Velasco was the extractor on  
6 10-25-10.

7 Q. Is that the same date as the State's Exhibit  
8 No. 7?

9 A. Yes.

10 Q. And so when you went through this data to get  
11 your analysis and performing the analysis on the data,  
12 you went back and made sure that everybody had done  
13 their job correctly?

14 A. Yes.

15 MR. MOSS: At this time, judge, we will  
16 re-urge State's Exhibits 6 through 9.

17 MR. GLASS: Your Honor, may I take the  
18 witness on voir dire?

19 THE COURT: You may.

20 MR. GLASS: Thank you.

21 Ma'am, you did not participate personally  
22 in any of the procedures resulting in the examination  
23 of these vials, did you?

24 THE WITNESS: You mean writing the  
25 procedures, yes, I do.

1 MR. GLASS: No, no.

2 I mean, you did not participate along  
3 with Velasco, Dumas, Salazar and Arndt in any of this  
4 work, did you?

5 THE WITNESS: No, I did not touch the  
6 blood. No, I did not analyze the blood.

7 MR. GLASS: And you have no personal  
8 knowledge, do you?

9 You know what they are supposed to do,  
10 but you have no personal knowledge of what they  
11 actually did, do you?

12 THE WITNESS: I do because I supervise  
13 them.

14 MR. GLASS: Did you supervise them while  
15 they were doing these analyses?

16 THE WITNESS: Yes.

17 MR. GLASS: At the very same time?

18 THE WITNESS: When I say supervise them,  
19 we do have assignments every day; and then I go and  
20 look at what they are doing. I may not look at each  
21 at that particular minute on which sample they are  
22 working on because we do batch analysis.

23 So batch analysis like, for instance,  
24 when they were doing alcohol, they probably have 30,  
25 40 alcohol tubes there which are really different



1 numbers. So another analyst will sign about the  
2 identity of the tubes, not me; but because we are  
3 doing a batch work, we do not do individual samples.

4 MR. GLASS: Right.

5 But you can't say, "I was overseeing what  
6 each of these persons was doing with regard to these  
7 vials each of the times they had these particular  
8 vials"?

9 THE WITNESS: No, no.

10 MR. GLASS: Okay. So what you are  
11 basically telling us is that if they followed  
12 procedures, everything should be okay; but you don't  
13 know personally whether or not they followed  
14 procedures?

15 THE WITNESS: I do know that they  
16 followed procedures.

17 MR. GLASS: Ma'am?

18 THE WITNESS: Yes.

19 MR. GLASS: Will you agree with me that  
20 you can't know unless you are watching them do it,  
21 right?

22 You can't personally know unless you are  
23 watching them do it. You told us that you didn't  
24 watch them do it.

25 THE WITNESS: Yes, that is correct.



1 MR. GLASS: All right.

2 Your Honor, we would re-urge our previous  
3 objection at the bench; and also, these appear to be  
4 copies, that the originals have not been tendered; and  
5 we object to the copies.

6 THE COURT: Prove it up a little bit,  
7 please.

8 MR. MOSS: Yes, Your Honor.

9 Q. (By Mr. Moss) I am handing you State's  
10 Exhibits 6, 7, 8 and 9.

11 Are these true and accurate copies of the  
12 certificates of analysis that was written by these  
13 four individuals?

14 A. Correct.

15 Q. And you have the originals in your folder?

16 A. Yes.

17 MR. MOSS: I will again re-urge Nos. 6  
18 through 9, Your Honor.

19 THE COURT: State's Exhibits 6 through 9  
20 are admitted.

21 MR. GLASS: Is this court overruling our  
22 objection?

23 THE COURT: Yes.

24 Q. (By Mr. Moss) So after you ensured that the  
25 analysis -- let's start at the beginning.

1                   So the blood comes in, and somebody  
2 does -- what is the first test run in this case?

3           A.    The first test was an alcohol test.

4           Q.    And what machine is used to do that test?

5           A.    A GC, gas chromatography.

6           Q.    And how does that work?

7                   Is there a specific thing done, or you  
8 kind of stick it in there and push a button?

9           A.    A gas chromatography is an instrument that  
10 has two parts where first you prepare the sample in a  
11 tube or in a glass vial where you add the blood sample  
12 in there, and there will be an internal standard added  
13 in there and a saline standard added in there, and the  
14 theory behind it is whatever is in the -- whatever  
15 amount of alcohol that is in the sample would vaporize  
16 and fill out the top part of the space. So we call it  
17 head space gas chromatography.

18                   You put that vial in the instrument, and  
19 the instrument will sample the gas phase from the tube  
20 and put it in the column where several different  
21 alcoholic components of that gas would be separated;  
22 and then if the GCMS, which is the gas chromatograph  
23 mass spectrum, which vaporizes it and burns it and  
24 then gives out the result of the amount of different  
25 alcohols in that sample.

1 Q. And so when that is done, in essence, an  
2 analyst takes that blood, puts it into the machine;  
3 and the machine runs a bunch of tests, right?

4 A. Yes.

5 Q. And then you get a result from that machine?

6 A. Yes.

7 Q. Are these machines calibrated?

8 A. Yes.

9 Q. How often are these machines checked for  
10 calibration?

11 A. Every day.

12 Q. In this case, was the machine calibrated on  
13 the day in question?

14 A. Yes.

15 Q. So after the blood was run in this case for  
16 the Ethanol or the alcohol, were there any additional  
17 tests run?

18 A. Yes. After the alcohol is performed, we do a  
19 screen sample for drugs, nine drug panels which  
20 includes Amphetamine, Methamphetamine, Barbiturates,  
21 the Opiates, the Cocaine, the PCP and Methadone. So  
22 it was screened for that drug, for those drugs.

23 Q. And if blood is found to have contained one  
24 of those drugs, is it further analyzed?

25 A. Yes. If one of those analysis comes back

1 positive from a screen, what we do is we do a  
2 confirmation testing. Like we have two blood vials,  
3 one blood vial would be screened; and if that comes  
4 back positive for any drugs that is screened for, the  
5 second blood would be confirmed on a different  
6 instrument.

7 Q. And was this blood found to contain any sort  
8 of drugs?

9 A. Yes. The first screening we found  
10 Nordiazepam. When we run those nine drug panels that  
11 we do for DWI cases, and then the Benzodiazepine is  
12 just a general drug group. So we have to know what  
13 kind of a Benzodiazepine is in there, so we have to  
14 process the sample and use LCMS for liquid  
15 chromatography mass spectrometry to identify what kind  
16 of a Benzodiazepine drug is in there.

17 Q. And was that test run on this blood in this  
18 case?

19 A. Yes.

20 Q. And did you get the results of those tests?

21 A. Yes.

22 MR. MOSS: May I approach the witness,  
23 Your Honor?

24 THE COURT: You may.

25 Q. By Mr. Moss) Let me show you what has been



1 previously marked as State's Exhibit No. 10.

2 Do you recognize this document?

3 A. Yes.

4 Q. What is it?

5 A. This is the final report for the case  
6 JAJ-10-009245.

7 Q. And did you generate this report?

8 A. Yes.

9 Q. And is your signature at the bottom of this  
10 report?

11 A. On the right side, yes.

12 Q. And are these findings and conclusions in  
13 this report your findings and conclusions?

14 A. Yes.

15 Q. And is it a true and accurate copy of that  
16 report?

17 A. Yes.

18 MR. MOSS: At this time, Your Honor, the  
19 state will introduce into evidence State's Exhibit No.  
20 10 and tender it to the defense counsel for objection  
21 and ask for it to be admitted.

22 MR. GLASS: May I have a moment, Your  
23 Honor?

24 THE COURT: You may.

25 MR. GLASS: Your Honor, may I approach?



1 THE COURT: You may.

2 (At the bench, on the record)

3 MR. GLASS: Your Honor, I would re-urge  
4 the objection made outside the presence of the jury  
5 made with regard to the alcohol under the balancing  
6 test and under 403. The unfair prejudice outweighs  
7 any probative value with regard to the alcohol.

8 Secondly, with regard to the Nordiazepam,  
9 judge, I think we have the same argument under 403, it  
10 is the danger of unfair prejudice point. The result  
11 of .01 milligrams per liter of this drug would tend  
12 to -- would invite the jury to speculate on how that  
13 would affect a person's system; and unless there is  
14 evidence as to what this amount means to a person in  
15 their conduct, vis-a-vis intoxication. All it does is  
16 invite the jury to speculate.

17 THE COURT: We may need some additional  
18 testimony.

19 MR. MOSS: Okay.

20 (Proceedings in open court)

21 Q. (By Mr. Moss) Dr. Guale, the two drugs, the  
22 Nordiazepam and the Tramadol, what type of drugs are  
23 those.

24 A. Nordiazepam is a metabolite or the breakdown  
25 product of a Diazepam. That is a drug that is

1 prescribed for a person to take care of, you know, for  
2 anxiety purposes.

3 Q. Let's talk about the Diazepam.

4 Is there a classification that Diazepam  
5 falls under, and how it would affect the nervous  
6 system?

7 A. Yes. This is a central nervous system  
8 depressant.

9 Q. What does that mean?

10 A. It means that if you are taking it for a  
11 prescribed purpose of it, the mechanics of the drug is  
12 just to calm you down. Sometimes it is prescribed for  
13 people who have panic attacks and anxiety, so it will  
14 calm you down if you are very hyper; but if you are  
15 taking it more, then it would just depress your mental  
16 system; and it will cause drowsiness.

17 Q. What type of -- well, is alcohol classified  
18 as a CNS depressant as well?

19 A. Yes. It is the same affect that the drug  
20 would have just like the alcohol depending on how much  
21 you have ov it.

22 Q. In this case, what was your finding as to the  
23 amount of drug?

24 A. The amount in this case given the fact that  
25 the active drug is not there, it is just only the

1 metabolite or the breakdown product, it is really a  
2 small amount. It really does not amount that much.  
3 It does not have any affect whatsoever.

4 Q. Now, could a CNS depressant like a Diazepam  
5 have a synergistic affect with Ethanol?

6 A. Yes. Whenever you are prescribed with those  
7 kinds of medications, there is a warning label saying,  
8 "Please, do not take it with alcohol," because it  
9 intensifies the affect of alcohol.

10 Q. So any amount of Diazepam intensifies the  
11 affect of alcohol in a person?

12 A. Yes, if you are combining it, yes.

13 Q. So in this case, could the Diazepam have had  
14 a synergistic affect with the Ethanol?

15 A. It does have a synergistic affect with  
16 Ethanol, yes.

17 Q. What type of drug is a Tramadol?

18 A. Tramadol is a synthetic narcotics, and it is  
19 a pain killer, and it is usually prescribed if you  
20 have pain. If you have arthritis, if you have back  
21 pain such as like that to just have an analgesic  
22 affect to kill the pain.

23 Q. What kind of affect does it have on the  
24 central nervous system?

25 A. It will also have -- because it is a



1     narcotic, it will also have the same affect or  
2     potential affect. When you are taking it with  
3     alcohol, it is usually a synergistic affect. It would  
4     make the down side or downward of the alcohol to get  
5     intensified.

6             Q.    So could it also have a depressant affect on  
7     the central nervous system?

8             A.    Yes.

9             Q.    Was the amount in this case was it a low  
10    amount?

11            A.    It is an under normal therapeutic label.

12            Q.    But when taken with the alcohol, it could  
13    have a synergistic affect?

14            A.    Yes.

15            Q.    And taking all three, the Tramadol, the  
16    Nordiazepam and the Ethanol, could all three combined  
17    have a greater synergistic affect?

18            A.    Yes.

19                   MR. MOSS: We will re-urge State's  
20    Exhibit No. 10.

21                   MR. GLASS: May I have a question or two  
22    on voir dire, Your Honor?

23                   THE COURT: You may.

24                   MR. GLASS: You mentioned, ma'am, that it  
25    could have, it could have.

1 By looking at that, would it be fair to  
2 say that you wouldn't say necessarily that it had a  
3 synergistic affect at the time this sample was taken,  
4 can you say that?

5 THE WITNESS: Well, according to what is  
6 written in the articles and those drugs that have got  
7 the same affect even though it is a prescription drug,  
8 right. You are prescribed that drug for that purpose,  
9 be it either anxiety or whatever you have. You are  
10 told not to do it with alcohol because it has a  
11 potential affect to the alcohol. So that is what it  
12 is. The fact is that is what it is.

13 MR. GLASS: But you are talking about  
14 possibilities?

15 THE WITNESS: It is not a possibility.  
16 It is a fact.

17 MR. GLASS: All right, but you can't say  
18 what the synergistic affect of these small amounts  
19 combined with alcohol can be, can you?

20 THE WITNESS: Say the question again?

21 MR. GLASS: Yes, ma'am.

22 We are showing less than .25 milligrams  
23 per liter of the Tramadol?

24 THE WITNESS: Yes.

25 MR. GLASS: And less than .01 milligrams.



1                   That is one-one hundredth of a thousandth  
2 of a gram of Nordiazepam.

3                   THE WITNESS: Yes.

4                   MR. GLASS: And my question to you is:  
5 At the time this was taken, two-and-a-half hours or  
6 whenever he was in the hospital Mr. Brown, you can't  
7 say exactly what kind of affect these drugs combined  
8 with .08 Ethanol alcohol would constitute in his  
9 system, can you?

10                  You can't say for sure?

11                  THE WITNESS: I don't know what kind of  
12 symptoms he had because I didn't see him. I cannot  
13 say for sure, but I can only state to you the fact  
14 that it is for sure it would have affects if you are  
15 combining it. That is the fact; but at that point,  
16 what you are asking me is when was the blood taken  
17 whether or not he has been showing that affects or  
18 not, I don't know.

19                  MR. GLASS: But the affect that it showed  
20 could be little to none to something you can see,  
21 right, somewhere within there?

22                  THE WITNESS: Yes.

23                  MR. GLASS: Okay; and you really don't  
24 know which it would be, correct?

25                  THE WITNESS: Which what?

1 MR. GLASS: Whether it will be just a  
2 little affect or almost no affect or a noticeable  
3 affect, you don't know from this, do you?

4 THE WITNESS: I can tell you that it will  
5 have an affect, but I don't know how much. I don't  
6 know how much affect it is because I didn't see. I  
7 cannot say anything about that.

8 MR. GLASS: But it could be such a small  
9 affect as not to be negligible, could it?

10 THE WITNESS: It could.

11 MR. GLASS: Your Honor, we will renew our  
12 previous objection made at the bench under 403; but  
13 the court has already ruled on it.

14 THE COURT: Yes. That is overruled.  
15 State's Exhibit No. 10 is admitted.

16 MR. MOSS: May I publish it, Your Honor?

17 THE COURT: You may.

18 Q. (By Mr. Moss) Just looking back, your  
19 findings was he was a .08 grams per milliliter of  
20 Ethanol in the blood; is that correct?

21 A. Per hundred milliliter, correct.

22 Q. And so we hear -- I am sure you have heard  
23 about having a .08 BAC?

24 A. Yes.

25 Q. That is essentially what this is saying?

1 A. Yes.

2 Q. And then he had some Nordiazepam and some  
3 Tramadol, right?

4 A. Yes.

5 MR. GLASS: Your Honor, may I have a  
6 running objection?

7 THE COURT: You may.

8 MR. GLASS: Thank you.

9 Q. (By Mr. Moss) You said that they were all  
10 received and processed?

11 A. Yes.

12 MR. MOSS: I will pass the witness, Your  
13 Honor.

14 CROSS-EXAMINATION

15 QUESTIONS BY MR. GLASS:

16 Q. Ma'am, the result of this test is valid only  
17 at the time the test is taken; isn't that correct?

18 A. That particular blood sample?

19 Q. Yes.

20 A. Yes.

21 Q. Now, you are not able to say what the blood  
22 results would be two, two-and-a-half hours before that  
23 time, are you?

24 A. Depending on where the person was. I mean, I  
25 don't know where was the person.

1 Q. I understand that; but what I am saying is  
2 based on this, there is no way that you can tell this  
3 jury --

4 A. Yes.

5 Q. -- what the blood alcohol level was or what  
6 the levels of these two controlled substances were or  
7 prescribed substances were two-and-a-half hours before  
8 this; isn't that correct?

9 A. Without having any other information, no, I  
10 cannot say anything.

11 Q. And, in fact, the blood alcohol could have  
12 been either higher or lower or the same two-and-a-half  
13 hours earlier; isn't that correct?

14 A. Like I say, I can't speculate because I don't  
15 have any information; but you are right. It could be  
16 higher. It could be lower depending on several  
17 factors.

18 Q. Or it could be the same depending on factors  
19 that we don't know?

20 A. Yes.

21 MR. GLASS: I have no further questions,  
22 Your Honor.

23 MR. MOSS: I have no further questions,  
24 judge.

25 THE COURT: You may stand down.



1 CAUSE NO. 2024734  
2 STATE OF TEXAS ) IN THE IMPACT COURT  
3 vs. )  
4 JOSE LUIS DELACRUZ ) HARRIS COUNTY, TEXAS  
5  
6

7 **MOTION TO SUPPRESS HEARING**

8 July 19, 2016  
9

10 On the 19th day of July, 2016, the following  
11 proceedings came on to be held in the above-titled and  
12 numbered cause before the Honorable Judge Linda Garcia,  
13 Judge Presiding, held in the County Criminal Court at  
14 Law No. 16 of Harris County, 1201 Franklin Street,  
15 Houston, Texas 77002.

16 Proceedings reported by computerized stenotype  
17 machine.  
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24  
25



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1 THE COURT: We're outside the presence  
2 of the jury. I understand based on -- Mr. Fletcher  
3 wants to make a motion to suppress?

4 MR. FLETCHER: Yes, your Honor.

5 At this moment, the Defense would move  
6 to suppress the blood in this case.

7 THE COURT: Okay. And do you have any  
8 witnesses on that motion?

9 MR. FLETCHER: We would call Dr.  
10 Fessessework Guale.

11 DR. FESSESSEWORK GUALE,  
12 having been first duly sworn, testified as follows:

13 DIRECT EXAMINATION

14 BY MR. FLETCHER:

15 Q. Good morning.

16 A. Good morning.

17 Q. Can you please state your name and spell your  
18 first and last name for the record.

19 A. Fessessework Guale, F-e-s-s-e-s-s-e-w-o-r-k; my  
20 last name is Guale, G-u-a-l-e.

21 Q. And how are you employed, Dr. Guale.

22 A. I am employed by the Harris County Institute of  
23 Forensic Sciences, in the toxicology section.

24 Q. And what is your job title in the toxicology  
25 section?

1       A.    I am the toxicology analytical operations  
2 manager.

3       Q.    So, it's part of your job responsibilities to  
4 oversee the testing of blood ethanol samples, right?

5       A.    Correct.

6       Q.    Okay. And your job is to make sure that the  
7 proper procedures were followed when a lab like yours is  
8 conducting blood ethanol testing, correct?

9       A.    Correct.

10      Q.    And you reviewed the -- the data in this case,  
11 correct?

12      A.    Correct. I don't have the case file. It's  
13 with the analyst, because you're supposed to go to  
14 testify first.

15      Q.    Sure. But you're responsible for supervising  
16 the data in this particular case, right?

17      A.    Correct.

18      Q.    Okay. And -- I just wanted to ask you a couple  
19 questions about -- you used a technique known as gas  
20 chromatography to analyze blood ethanol samples, right?

21      A.    Yes.

22      Q.    And basically, gas chromatography, or GC for  
23 short, is the science of separation, right?

24      A.    Correct.

25      Q.    What GC is, is you can analyze a sample for

1 volatile compounds and figure out what the  
2 concentrations of those compounds are in the blood,  
3 right?

4 A. Correct.

5 MS. KIMBROUGH: Your Honor, since his  
6 taking Dr. Guale as his witness, I just ask that he not  
7 lead her.

8 MR. FLETCHER: It's a motion to  
9 suppress.

10 THE COURT: It's overruled.

11 Q. (Mr. Fletcher) Basically what a GC does is you  
12 take a sample and it heats it up and runs it through a  
13 column which separates all the active volatiles and then  
14 they come out at the end and then you can tell what time  
15 they came out, right?

16 A. Correct.

17 Q. That's a real basic definition of what a GC  
18 does, right?

19 A. Correct.

20 Q. Okay. So, in your lab, you have what's known  
21 as standard operating procedures, right?

22 A. Correct.

23 Q. And those are written guidelines that dictate  
24 how blood ethanol samples are supposed to be run, right?

25 A. Correct.

1 Q. And people that work in your lab are guided by  
2 the SOP's, right?

3 A. Correct.

4 Q. And the SOP's dictate how the individual blood  
5 ethanol test is run in your lab, right?

6 A. Correct.

7 Q. And people are supposed to abide by the SOP's,  
8 right?

9 A. Correct.

10 Q. I mean, they're important enough to put into  
11 writing, right?

12 A. Correct.

13 Q. And the purpose of doing an SOP is to ensure  
14 that the science is accurate, right?

15 A. Correct.

16 Q. And another purpose is to assure that the  
17 science is reliable, right?

18 A. Correct.

19 Q. So, if you follow the guidelines sponsored by  
20 your lab, then you can come in here and say this is a  
21 valid sample, right?

22 A. Correct.

23 Q. Now, according to your SOP, when a person does  
24 a blood ethanol analysis, they have to do certain things  
25 before they can say that it's an accurate result, right?



1 A. They follow procedures.

2 Q. They follow the procedures --

3 A. Yes, sir.

4 Q. And those are things like sample preparation,  
5 right?

6 A. Yes.

7 Q. And making sure that the critical parameters of  
8 the machine are accurate, right?

9 A. Yes.

10 Q. And you have to do a whole bunch of checks and  
11 sequences before the machine is even ready to start  
12 doing a run, right?

13 A. Correct.

14 Q. And according to your SOP's one of those  
15 requirements is that the analysts run what's known as a  
16 calibration curve before each sequence, right?

17 A. Yes.

18 Q. Your own SOP's require that a calibration curve  
19 be conducted each time a blood analysis is done, right?

20 A. Right.

21 Q. And if a person were not to run a calibration  
22 curve, then that could be a big problem, right?

23 A. Without a calibration curve, you can't -- you  
24 can't come up with a number.

25 Q. Right.

1       A.    So, it's important that you have a calibration  
2 curve.

3       Q.    Because you have to -- basically, what the  
4 calibration curve is, for the Court's understanding, is  
5 you run a series of concentrations of ethanol through  
6 known standards in the machine and make sure that they  
7 come out at what you know them to be, right?

8       A.    Correct.

9       Q.    And there are a total of six points of  
10 calibration on the GC machine in your lab, right?

11      A.    Correct.

12      Q.    Okay. And you are required to -- the lab is  
13 supposed to print off each of the chromatograms for each  
14 point on the calibration curve, right?

15      A.    Correct.

16      Q.    And that way, you can tell whether or not  
17 what's being reported on the curve is accurate as to  
18 what came out on the chromatogram, right?

19      A.    Correct.

20      Q.    I'm going to show you what has been previously  
21 marked as Defendant's Exhibit 2.

22                    Do you recognize what this is,  
23 Dr. Guale?

24      A.    Yes. This is the calibration curve.

25      Q.    That's the calibration curve for the sample in

1 this case, right?

2 A. Correct.

3 Q. And that was provided by your lab to me through  
4 the Court's discovery order, correct?

5 A. Yeah.

6 Q. Okay. And as far as you know, is anything --  
7 is this a fair and accurate copy of the calibration  
8 curve that was done in this case?

9 A. If you can give me the data that's associated  
10 with it, because the dates maybe different.

11 Q. Sure. Okay. Let's do that.

12 Oh, and I forgot to ask: It's your  
13 standard operating guideline that you report the -- the  
14 concentration of ethanol to a third decimal place,  
15 right?

16 A. We changed it, yeah.

17 Q. Right. You report three, right?

18 A. Yeah.

19 Q. Because the machine will truncate it after  
20 three, so, you don't -- you don't round down after  
21 three, right?

22 A. No.

23 Q. But you do report three decimal places, right?

24 A. Yes. It used to be only two; but now, we are  
25 doing it three.

1 Q. Right. But according to your current SOP,  
2 you're reporting three.

3 A. Correct.

4 Q. All right. I'm going to show you what has been  
5 marked as Defendant's Exhibit 3.

6 Can you tell me, Dr. Guale, what this  
7 is?

8 A. This is a data that was generated from a .025  
9 standard --

10 Q. Uh-huh.

11 A. -- which is actually right here.

12 Q. Okay. And that chromatogram that you have,  
13 Defendant's Exhibit 3, that's a chromatogram that's  
14 associated with the calibration curve, Defendant's  
15 Exhibit 2, right?

16 A. Correct.

17 Q. Okay. I'm going to show you what's been marked  
18 as Defendant's Exhibit 4.

19 Can you please tell the Court what  
20 Defendant's Exhibit 4 is?

21 A. It is a .050 standard, which is right here.

22 Q. Okay. And that chromatogram corresponds to the  
23 calibration that we're talking about, right?

24 A. Yes.

25 Q. Okay. I'm going to show you what's been marked

1 as Defendant's Exhibit 5. And this one's two sided.

2 Can you -- do you recognize what this  
3 is, Dr. Guale?

4 A. This is the .2 standard, which is right here.

5 Q. And that chromatogram is associated with the  
6 calibration curve on Defendant's Exhibit 2, correct?

7 A. Yes.

8 Q. Okay. And on the other side of Defendant's  
9 Exhibit 5, can you tell the Court what this is, please?

10 A. This is a .3 standard.

11 Q. Same question: That's associated with the  
12 calibration curve that we're talking about, right?

13 A. Yes.

14 Q. Okay. Last one. I'm showing you what's been  
15 marked as Defendant's Exhibit 6.

16 Can you please tell the Court what that  
17 is, Dr. Guale?

18 A. This is the .4 standard. And that's here.

19 Q. And that's also associated with the calibration  
20 curve, right?

21 A. Yes.

22 Q. Now, I want to ask you to -- for the Court's  
23 understanding, read off the calculated result for the  
24 .025 calibrator, please.

25 A. The .025?



1 Q. Right. What is the reported or the calculated  
2 grams per deciliter?

3 A. .025.

4 Q. Okay. And what is the calculated report on the  
5 chromatogram for that calibrator?

6 A. .024.

7 Q. Okay. Same thing with this Defendant's  
8 Exhibit 4: Can you tell the Judge what the reported or  
9 the calculated grams per deciliter is on the  
10 calibration?

11 A. .049.

12 Q. And what was the calculated value on the  
13 chromatogram associated with that?

14 A. .049.

15 Q. Okay. On Defendant's Exhibit 5, can you tell  
16 the Judge what the calculated grams per deciliter was on  
17 the calibration curve?

18 A. .198.

19 Q. Okay. And what is the calibrated value on the  
20 chromatogram?

21 A. .199.

22 THE COURT: I'm sorry, what's that  
23 number?

24 MR. FLETCHER: .199.

25 THE COURT: .199?

1 THE WITNESS: Yes.

2 THE COURT: And the first number was?

3 MR. FLETCHER: .198, Judge.

4 THE COURT: Thank you.

5 Q. (Mr. Fletcher) And can you tell Judge what the  
6 calculated grams per deciliter was for the .03 standard  
7 on the calibration curve?

8 A. The .3 is written .3.

9 Q. .3. And what does the chromatogram say for  
10 that?

11 A. .302.

12 Q. Okay. And last one, can you tell the Judge  
13 what the calculated grams per deciliter was on the  
14 calibration curve for the .4 standard?

15 A. .402.

16 Q. Okay. And can you read what the calculated  
17 concentration was for the chromatogram?

18 A. .401.

19 Q. Okay. Thank you.

20 Dr. Guale, would you agree with me that  
21 four -- excuse me, five out of these six chromatograms  
22 associated with this calibration curve report different  
23 value than what it reported on the curve, yes or no?

24 A. You must have another printout in there that  
25 you did not show me.

1 MR. FLETCHER: Nonresponsive, your  
2 Honor.

3 Q. (Mr. Fletcher) Would you agree with me that  
4 what we just went through, five of the six chromatograms  
5 do not match what was reported in the calibration curve?

6 A. Correct.

7 Q. Okay. And if you were to discover a problem  
8 with a calibration curve, you wouldn't report the  
9 result, right? You wouldn't sponsor the result, if you  
10 weren't sure that the calibration curve was done  
11 properly?

12 A. If those two numbers don't match, no.

13 Q. If they don't match, then you can't sponsor the  
14 result, right?

15 A. No. But I'm assuring you, there's another one  
16 included in there which matches.

17 Q. Do you have that with you?

18 A. No. You have it in your discovery.

19 MR. FLETCHER: I'll pass the witness,  
20 your Honor.

21 THE COURT: Ms. Kimbrough?

22 MS. KIMBROUGH: Brief re-direct, your  
23 Honor.

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**CROSS-EXAMINATION**

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MS. KIMBROUGH: Can I have those exhibits.

MR. FLETCHER: Sure.

Q. (Ms. Kimbrough) So, the differences in the numbers that we just talked about, do they indicate that the calibration on the instrument used in this case was done incorrectly?

A. Repeat your question again.

Q. Do the differences in those values that we just talked about indicate that the calibration that was done on this instrument used in this case was done incorrectly?

A. No.

Q. What does it indicate?

A. That indicates there was another calibration curve that was included in the discovery order that wasn't given to me, that means -- usually, when you come in in the morning, you had an instrument that ran yesterday.

So, when you are running your new standards and the calibrators, those numbers come out based on what the calibrator yesterday was.

So, what you do is once that's printed out, you ask the instrument to give you the calibration

1 based on those calibration points that you run today.

2 So, you will have two printouts.

3 Q. Okay.

4 A. So, that's -- what I saw was we have had this  
5 before, in several cases where by rules --

6 MR. FLETCHER: Object to relevance.

7 THE COURT: Sustained.

8 Q. (Ms. Kimbrough) So, you're saying that there's  
9 another document that you've provided to defense counsel  
10 that shows that the calibration was done correctly,  
11 right?

12 A. Correct.

13 Q. And you asked and he refused to give it to you  
14 on the stand, right?

15 MR. FLETCHER: Objection, your Honor,  
16 that's not what happened.

17 THE COURT: Sustained.

18 Q. (Ms. Kimbrough) Did you ask to see that  
19 document?

20 A. I indicated that this is not -- there is  
21 another document in there that included all the points,  
22 the right points in the calibrator.

23 Q. Okay. And you stated earlier that you didn't  
24 bring a case file with you on this case?

25 A. No. It's with the analyst.



1 Q. Okay. And if the analyst were to arrive here  
2 in a couple of minutes with those documents, would you  
3 be able to find and refer to the document that you're  
4 speaking of that shows that the calibration of the  
5 instrument used in this case was done correctly?

6 A. In the -- we don't have those in the case  
7 folder, but they're in the discovery order. They're  
8 included in there.

9 Q. I'm handing you what's been previously marked  
10 as State's Exhibit 20.

11 Do you recognize this?

12 A. Yes.

13 Q. What is it?

14 A. It's a laboratory result on the laboratory  
15 analysis performed on Jose Luis Delacruz.

16 Q. And who is the expert reviewer listed on the  
17 bottom of that lab result?

18 A. It is Fessessework Guale. It would be me.

19 Q. Okay. And does your signature appear on it?

20 A. Yes.

21 Q. Can you tell me what your signature signifies  
22 on this document?

23 A. That means I am the expert reviewer. I looked  
24 at the whole case and I attested that the result is  
25 reliable. That's why I signed. My signature means this

1 is correct and reliable result.

2 Q. Okay. And in coming to that conclusion, would  
3 you have reviewed all the documents associated with the  
4 maintenance and calibration of this particular  
5 instrument?

6 A. That person would be Glenda Thomas. She is a  
7 technical reviewer. She reviews everything that's  
8 associated -- any data associated with this work, would  
9 be reviewed, the chain of custody and everything; and  
10 then she would put her signature here.

11 All the other data is correct. And the  
12 testing was performed and conducted according to the  
13 standard operating procedure.

14 Q. Okay. So, what do you look at to affix your  
15 signature on it?

16 A. I have to look at the data in the case folder.

17 The data in the case folder, there's a  
18 submission paper in there where; who submitted the  
19 samples, who signed it, and it was picked up by a  
20 person. I have to make sure this is the exact sample  
21 that was received, and I have to make sure -- I have to  
22 look at the chromatographic data and make sure that  
23 number that was on the chromatogram is actually here and  
24 that the units are correct.

25 Q. Okay.

1       A.    And that's pretty much it.

2                   I want to make sure that we have  
3 rules -- if the alcohol is for instance, less than .1,  
4 then I would have to send that for drug analysis. And  
5 all those are taken care of. This is greater than .1;  
6 so, it's good to go.

7       Q.    So, based on your review of the records in this  
8 case, did you by signing that certify that the lab  
9 result in this case is reliable and performed subject to  
10 the protocol set out in your SOP's?

11       A.    Yes.

12       Q.    And based on the documents that have been  
13 placed in front of you by defense counsel today, does  
14 that alter your opinion regarding whether or not the lab  
15 results in this lab in this case are reliable?

16       A.    No, it doesn't. I'm aware of what's included  
17 in this lab result.

18                   MS. KIMBROUGH: Pass the witness.

19                   THE COURT: Anything further,  
20 Mr. Fletcher?

21                   MR. FLETCHER: Just briefly, your Honor.

22                   **REDIRECT EXAMINATION**

23 BY MR. FLETCHER:

24       Q.    Dr. Guale, earlier, you and I agreed that the  
25 chromatograms that I showed you were associated with the

1 calibration curve that I also showed you, right?

2                   Those are the same chromatograms used to  
3 create that same calibration curve, yes or no?

4       A.     No.

5       Q.     They're not?

6       A.     They're not.

7       Q.     Even though you testified earlier that they  
8 were. You're changing it now?

9       A.     No, I'm not changing it. I'm telling you that  
10 the one that you showed me, the curve says 6/22. I'm  
11 trying to associate those with that, but I'm aware of  
12 what's going on in the lab in the same day. So, you  
13 have two printouts. So, show me the other one.

14                   MR. FLETCHER: Objection, your Honor,  
15 improper burden shifting.

16                   THE COURT: Sustained.

17       Q.     (Mr. Fletcher) Dr. Guale, I'm going to do this  
18 one more time.

19                   This is the calibration curve you  
20 testified earlier associated with this case, correct?

21       A.     I'm telling you --

22       Q.     What is the date?

23       A.     -- there is another one.

24       Q.     What is the date on this calibration curve?

25       A.     It's 6/22.

1 Q. Okay. And what is the date on this  
2 chromatogram?

3 A. 6/22.

4 Q. Okay. And what is the date on this  
5 chromatogram?

6 A. 6/22.

7 Q. And what is the date on this chromatogram?

8 A. 6/22.

9 Q. Same thing with the other side, what's date on  
10 that?

11 A. 6/22.

12 Q. And finally, that one. What's the date on  
13 that?

14 A. 6/22.

15 Q. Okay. So, it's fair to say that this  
16 calibration curve in these chromatograms were done on  
17 the same day, correct?

18 A. They're done on the same day, but there is  
19 another printout.

20 Q. You don't have that with you, do you?

21 A. No, I don't; but you have it.

22 Q. And you don't have any of the chromatograms  
23 associated with the report calculated concentrations on  
24 this curve, do you (indicating)?

25 A. I don't.



1 Q. I have that. I just showed them to you, right?

2 A. There is another one because I know what's  
3 included in the discovery order.

4 Q. You agreed with me earlier that these  
5 chromatograms are the ones that are associated with this  
6 calibration curve, isn't that correct?

7 A. Now I see they're not.

8 Q. Okay. But you testified earlier that they  
9 were.

10 A. Because I didn't know where you were going. I  
11 didn't know you were hiding some documents --

12 MR. FLETCHER: Objection, your Honor  
13 nonresponsive.

14 THE COURT: Sustained.

15 Actually, that's overruled. I think it  
16 is responsive. But it doesn't matter. It's to the  
17 Court.

18 Q. (Mr. Fletcher) And one last time, Dr. Guale,  
19 if you found out that there was a problem with the  
20 calibration curve on any given sequence, then you would  
21 not sponsor the result, isn't that correct?

22 A. Correct.

23 Q. Okay.

24 MR. FLETCHER: Pass the witness, your  
25 Honor.

**RECROSS-EXAMINATION**

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BY MS. KIMBROUGH:

Q. And are you aware of a calibration problem with this instrument?

A. There is no calibration problem. It is a process.

Q. When you have --

A. And we have two printouts. And one is based on a calibration that was done yesterday and the other one is based on that calibration points. But they're going to printout, both of them, the same date.

Q. So, I've just received in my hand the case file from the analyst.

Would the documentation in this file assist you in further asserting your certification that the lab result in this case was reliable and subject to proper protocols?

A. It was done based on the standard operating procedure and as a result is reliable.

Q. Would there be anything in the analyst's case file that would further help you to confirm that?

A. You can give it to me. I can show you.  
(Reviewing).

Q. Is it possible that there are documents on this disc that are not in hard copy on the file?

1       A.    Yeah.  All that document is, every data that's  
2 associated with this run.

3       Q.    Okay.

4       A.    This case folder is only the result and is a  
5 submission.

6       Q.    Okay.

7       A.    So, the only thing is, you know, there is a  
8 date and the time that the sample was run and the date  
9 that, you know --

10      Q.    So, there's no hard copy calibration records in  
11 this case?

12      A.    No.

13      Q.    Would there be on this disc?

14      A.    Yes.

15                   MS. KIMBROUGH:  Your Honor, may we have  
16 a brief recess to pop this in so that she can tell me  
17 what document she's referring to so that we can provide  
18 that to the Court?

19                   THE COURT:  Sure.

20                   (Recess taken)

21                   THE COURT:  We're back on the record.

22 BY MS. KIMBROUGH:

23      Q.    While we were on recess, did you have the  
24 ability --

25                   While we were on the break, you were

1 about to review the entire case file associated with  
2 this lab; is that correct?

3 A. Correct.

4 Q. And while we were reviewing that, did you come  
5 across any documents that you found would be helpful to  
6 your determination specifically whether the calibration  
7 of this instrument was done properly?

8 A. Correct.

9 Q. What documents generally did you come across?

10 A. I came across the document that I asked the  
11 defense counsel to give to me, and it's right there.

12 Q. Okay. And specifically, this is 13 pages of  
13 documents that were, amongst several other documents,  
14 provided to defense counsel at discovery; is that right?

15 A. Correct.

16 Q. By your office?

17 A. Correct.

18 Q. And so, I'm about to come up and hand you  
19 State's Exhibit 23 through 38; and I'm just going to ask  
20 you -- can you tell me what State's Exhibit 23 through  
21 38 are?

22 A. This is a calibration curve, which have the  
23 same June 11 date, and all the associated chromatograms  
24 generated using that curve.

25 Q. And the documents represented in State's 23

1 through 38, do they represent a complete rendering of  
2 the calibration protocols that were followed regarding  
3 the instrument that was used to test this blood in the  
4 case?

5 A. Correct.

6 Q. And if you've had time to review those while  
7 you're on the witness stand, can you state -- does the  
8 information in that document support your earlier  
9 conclusion that the blood results in this case were  
10 reliable and were reached after following the protocol  
11 set out in your standard operating procedure?

12 A. Correct.

13 Q. Okay. Is there a specific document in there  
14 that you would point to for that conclusion? If not,  
15 that's okay, but if there is one.

16 Is there a specific document that you  
17 were referring to that you didn't get on direct  
18 examination with defense counsel?

19 A. Yeah, these chromatograms.

20 Q. Okay. Which one specifically, in terms of  
21 exhibit number?

22 A. I have to see what he showed me before, because  
23 there are several of them.

24 Q. So, I'm also handing you Defense 2, 3, 4, 5,  
25 and 6.



1 A. Okay.

2 Q. Just kind of keep these with you.

3 So, is Defense 2 the same as State's 23?

4 A. This one goes with this.

5 Q. Oh, you've got to refer to them by exhibit  
6 number.

7 A. Okay. Twenty-three.

8 Q. State's 23.

9 A. And this one, which is 24 matches what's on  
10 the 23.

11 Q. So, just so we're clear, these are Defense  
12 Exhibits. 2, 3, 4, 5 and 6 with the blue sticker are  
13 Defense Exhibit. The ones with the white stickers are  
14 State's Exhibits.

15 So, you said State's Exhibit 23 is a  
16 duplicate of what in the Defense Exhibit?

17 A. Okay. I need to get -- this initial is KP.

18 Q. Okay. What's that initial?

19 A. That's the analyst's initial, which she's not  
20 here. And this one, under Salazar, 11/26. (Reviewing).

21 Okay.

22 Q. I guess what I'm trying to ask is: How do we  
23 ensure the Judge that we followed the standard operating  
24 procedures regarding this lab?

25 A. How do we ensure?

1 Q. Uh-uh.

2 A. All the documents are really here.

3 Q. And can you personally testify that the  
4 standard operating procedures were followed in this  
5 case?

6 A. Yes.

7 Q. And that's your testimony under oath?

8 A. Yes.

9 Q. Under the penalty of perjury?

10 A. Yes.

11 Q. Okay. And are you as the -- tell me what your  
12 full title is again.

13 A. Analytical operations manager.

14 Q. Okay. And -- what qualifications do you have  
15 to go through to hold that title?

16 A. Oh, I have almost 25 years of experience  
17 working in the lab, in toxicology lab, and I do have a  
18 managerial and supervisory experience, plus I do have a  
19 specialized training. I hold a master's degree in  
20 toxicology.

21 So, when you do specialized --

22 MR. FLETCHER: Your Honor, we'll  
23 stipulate for this hearing that the witness is an  
24 expert.

25 THE COURT: Okay.

1 MS. KIMBROUGH: I was just trying to get  
2 through that the witness is qualified to make that  
3 determination that the standard operating procedures  
4 were followed in this case.

5 Is that what you're stipulating to?

6 MR. FLETCHER: Just that you don't have  
7 to build up her qualifications or anything.

8 MS. KIMBROUGH: Okay.

9 MR. FLETCHER: I stipulate for the  
10 purposes of this hearing that the witness is an expert.

11 MS. KIMBROUGH: Let me be clear so that  
12 I know I do not have to go further: You're stipulating  
13 that she's qualified to testify regarding the fact that  
14 the standard operating procedures were followed in this  
15 case?

16 THE COURT: Yes. Ms. Kimbrough, we've  
17 already agreed that she's an expert.

18 MS. KIMBROUGH: Sure.

19 Pass the witness, Judge.

20 **FURTHER REDIRECT EXAMINATION**

21 BY MR. FLETCHER:

22 Q. Dr. Guale, I'm going to ask you the same sort  
23 of exercise that we did before.

24 Can you tell me, please, on the  
25 calibration curve dated for June 11th, can you read to

1 the Court what the calculated result was for the .05  
2 calibrator?

3 THE COURT: But we've been through this  
4 before, Mr. Fletcher.

5 MR. FLETCHER: This is a different  
6 chromatogram.

7 THE COURT: It's a different  
8 chromatogram?

9 MR. FLETCHER: It's a different  
10 calibration curve.

11 THE COURT: For the 05?

12 MR. FLETCHER: For the 05.

13 Q. (Mr. Fletcher) Can you read out the calculated  
14 grams per deciliter for .05 calibrator?

15 A. .048.

16 Q. Okay. And can you read for the Court, the  
17 calculated amount on the chromatogram associated with  
18 that same calculator?

19 A. .047.

20 Q. And can you read for the Court, the reported  
21 value on the calibration curve for the .10 calibrator?

22 A. .1.

23 Q. And can you read for the Court, the  
24 corresponding chromatogram value?

25 A. .099.

1 Q. All right. And can you read for the Court, the  
2 calculated result on the calibration curve for the .03  
3 standard?

4 A. .298.

5 Q. And again, can you tell the Court what the  
6 calculated value on the chromatogram was?

7 A. .297.

8 Q. Okay. And last one, can you tell the Court  
9 what the reported value on the calibration curve was for  
10 the .04?

11 A. .402.

12 Q. And same thing, can you read the calculated  
13 value on the chromatogram?

14 A. .401.

15 Q. Okay. So, would you agree with me, Dr. Guale,  
16 that on four of the calibrations used for this  
17 calibration curve, the reported values are different  
18 than those that came out on the chromatogram, yes or no?

19 A. Correct.

20 MR. FLETCHER: Pass the witness, Judge.

21 THE COURT: Anything further,  
22 Ms. Kimbrough?

23 MS. KIMBROUGH: Nothing further, Judge.

24 THE COURT: I have a question, Doctor.

25 Dr. Guale, how closely do the



1 calculations have to match before you can rely on the  
2 results -- the testimony that Mr. Fletcher has elicited,  
3 is that enough of a difference to make a difference in  
4 the outcome of the sample?

5 A. No.

6 Sometimes, the numbers would get  
7 truncated and they show up in there.

8 THE COURT: Okay. Thank you.

9 Anything further for this witness from  
10 either side?

11 MR. FLETCHER: Just one question.

12 THE COURT: Okay.

13 **FURTHER REDIRECT EXAMINATION**

14 BY MR. FLETCHER:

15 Q. Dr. Guale, would you agree with me that the  
16 results that are reported on the chromatograms for both  
17 calibration curves, there are at least ten different  
18 values than what are reported in the chromatograms?

19 A. They are not ten different values.

20 Q. Okay. There were six, excuse me, five on the  
21 first one and four on the second one, correct?

22 A. Correct.

23 Q. Okay. So, we have nine reported values on the  
24 calibration curve that are different from what the  
25 chromatogram say, right?

1 A. Correct. And these are two different runs.

2 Q. Right. One is the initial and one is the  
3 confirmatory one.

4 A. One is the initial and the other one is the  
5 confirmatory one.

6 Q. But your SOP's call for running a calibration  
7 curve on either one, correct, before you start, right?

8 A. Yeah.

9 Q. Okay. And you don't have any chromatograms  
10 with you that show the reported values on the  
11 calibration curve for either one, right?

12 A. You mean with me?

13 Q. Yeah.

14 A. For the case or for the --

15 Q. For the calibration curve, you do not have with  
16 you chromatograms reflecting the report -- the values  
17 issued on the report, right?

18 A. Yeah. These are right here. Right now, we  
19 have them.

20 Q. But we just went through that there's nine  
21 different ones that you don't have chromatograms for?

22 A. They're not different.

23 Q. They're different than what was reported.

24 A. Just that the -- that's in the same  
25 chromatogram. You have it here. They're the numbers.

1 The third digit is -- the third decimal digit is  
2 different.

3 Q. Right. And it's your lab's SOP to report to  
4 three digits, right?

5 A. Correct.

6 Q. Okay.

7 MR. FLETCHER: Pass the witness, your  
8 Honor.

9 MS. KIMBROUGH: Nothing further, Judge.

10 THE COURT: Okay. You can step down,  
11 Dr. Guale.

12 I'm going to deny the Defendant's motion  
13 to the suppress on the basis that I believe that the  
14 problems brought up in the motions go to the weight, not  
15 the admissibility of the evidence.

16 Bring the jury back.

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1                   THE COURT: Does anybody have anything  
2 we need to take up with the Court before we bring the  
3 jury back in.

4                   MR. FLETCHER: Just that -- I forgot to  
5 mention this earlier -- during my motion to suppress for  
6 the blood, I intended to make the argument that the  
7 State haven't met their burden under *Kelly v. State*,  
8 specifically the third prong, based on the witnesses  
9 testimony; and I forgot to make that argument after you  
10 had made your rulings. I just wanted to get that on the  
11 record that that's what I intended to argue.

12                  THE COURT: I'm glad you brought that  
13 up. Let's address that.

14                  Because we had had the jury for quite a  
15 bit of time at the time, I didn't really give chances to  
16 argue that.

17                  So, if you would like to say a few words  
18 about that motion at this time -- so, you're saying that  
19 they didn't meet their burden under *Kelly*?

20                  MR. FLETCHER: Right.

21                  The argument is, Judge, that the State  
22 is required to show by a clear and convincing evidence  
23 to the Court as the gate keeper under *Kelly v. State* for  
24 the proponent of any scientific evidence, and the State  
25 bears the burden of introducing the contested evidence;

1 specifically, the blood in this case.

2                   And the argument would be from the  
3 Defense is that the State's expert witness testified  
4 that the -- that it's very important to do a calibration  
5 curve before you do any sort of blood analysis and you  
6 have to follow the standard operating procedures.

7                   And if you don't, if you don't have a  
8 proper calibration, then the result can't be sponsored  
9 because we don't know if the machine was accurate or  
10 not. And in this specific case -- and I don't know how  
11 this happened, I'm not guessing one way or the other,  
12 but the fact is that the calibration curve, in my  
13 opinion, has some major issues with its -- specifically  
14 that the levels reported on the curve itself do not  
15 coincide with what was actually produced in the data, in  
16 the chromatograms.

17                   And we would argue that the State can't  
18 meet their burden under the third prong of Kelly because  
19 the calibration curve is inaccurate. What's reported  
20 was not what was actually conducted. And therefore, if  
21 the calibration curve is inaccurate, then the result  
22 itself is inaccurate; and therefore, the State can't  
23 meet their burden under Kelly.

24                   THE COURT: Thank you.

25                   Do you have any response?



1 MS. KIMBROUGH: Just to point out that  
2 Dr. Guale testified actually in response to a question  
3 by the Court that the variation between those numbers  
4 did not mean that the calibration was done incorrectly.

5 They were, at the most, you know, two  
6 thousands of a point different and she testified that  
7 she stood behind the reliability and accuracy of the  
8 lab. She's a duly qualified expert, as was stipulated  
9 to by counsel, and she also testified regarding the  
10 reliability of the lab itself as well as the underlying  
11 methodology under 702.

12 THE COURT: Okay.

13 So, your objections and your arguments  
14 now are noted for the record; and the motion is denied.

15 *(Proceedings Concluded)*  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

1 STATE OF TEXAS  
2 COUNTY OF HARRIS

3 **REPORTER'S CERTIFICATE**  
4 **MOTION TO SUPPRESS HEARING**

5 July 19, 2016  
6

7 I, Mubarak Oladejo, Official Court Reporter in and  
8 for the County Criminal Court at Law No. 16 of Harris  
9 County, State of Texas, do hereby certify that the above  
10 and foregoing contains a true and correct transcription  
11 of all portions of evidence and other proceedings  
12 requested in writing by counsel for the parties to be  
13 included in this volume of the Reporter's Record in the  
14 above-styled and numbered cause, all of which occurred  
15 in open court or in chambers and were reported by me.

16 I further certify that the total cost for the  
17 preparation of this Reporter's Record is \$\_\_\_\_\_ and was  
18 paid/will be paid by \_\_\_\_\_.

19

20 /s/ Mubarak Oladejo  
21 Mubarak Oladejo, CSR  
22 Texas CSR 9224  
23 Official Court Reporter  
24 County Criminal Court  
25 At Law No. 16 of Harris County  
1201 Franklin Street  
Houston, Texas 77002  
Telephone: (713) 755-3575  
Expiration: 12/31/2018

# **EXHIBIT #4**

	1	Excerpt Testimony January 27, 2016
1		REPORTER'S RECORD
2		VOLUME 1 OF 1 VOLUMES
3		TRIAL COURT CAUSE NO. 1999133
4		THE STATE OF TEXAS ) IN THE COUNTY CRIMINAL
5		)
6		)
7		)
8		)
9		)
10		vs. ) COURT AT LAW NUMBER FIVE (5)
11		)
12		)
13		)
14		DANIEL BRYANT IMRECKE ) HARRIS COUNTY, TEXAS
15		
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25		
		Ramona St. Julian Sonnier, CSR Certified Shorthand Reporter

	2	Excerpt Testimony January 27, 2016
1		APPEARANCES
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		Ramona St. Julian Sonnier, CSR Certified Shorthand Reporter

## VOLUME 1

## EXCERPT TESTIMONY

January 27, 2016

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## EXHIBITS OFFERED BY THE STATE

EXHIBIT	DESCRIPTION	OFFERED	ADMITTED	VOL.
A	Retrograde Alcohol Extrapolation Report	16	18	1
19	PowerPoint - Alcohol Analysis by GC Headspace	63	63	1
20	HCIFS Laboratory Report	77	138	1
21-26	HCIFS Gas Chromatogram	109	109	1
22	HCIFS Gas Chromatogram	162	162	1
22	HCIFS Gas Chromatogram	162	162	1
26	HCIFS Gas Chromatogram	162	162	1
24	HCIFS Gas Chromatogram	162	162	1
25	HCIFS Gas Chromatogram	162	162	1
26	HCIFS Gas Chromatogram	162	162	1

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## EXHIBITS OFFERED BY THE DEFENSE

EXHIBIT	DESCRIPTION	OFFERED	ADMITTED	VOL.
3-9	HCIFS Gas Chromatogram	83	83	1
3	HCIFS Gas Chromatogram	143	143	1
4	HCIFS Gas Chromatogram	143	143	1
5	HCIFS Gas Chromatogram	143	143	1
6	HCIFS Gas Chromatogram	143	143	1
7	HCIFS Gas Chromatogram	143	143	1
8	HCIFS Gas Chromatogram	143	143	1
9	HCIFS Gas Chromatogram	143	143	1
10	HCIFS Gas Chromatogram	143	143	1
11	Chart	98	98	1

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1 THE COURT: Raise your right hand.  
2 (Witness sworn)  
3 THE COURT: Great. Come on up here.  
4 We're going on the record, outside the presence of  
5 the jury, in the State of Texas versus Daniel Bryant  
6 Imrecke, on a Gatekeeper Hearing with regard to  
7 certain testimony of this witness that's being  
8 proposed by the State.  
9 Ms. Williams, please proceed with  
10 regard to this scope. Thank you.  
11 MS. WILLIAMS: Yes, Your Honor.  
12 FESSESSEWORK GUALE,  
13 having been first duly sworn, testified as follows:  
14 DIRECT EXAMINATION  
15 BY MS. WILLIAMS:  
16 Q. Could you please introduce yourself?  
17 A. My name is Fessessework Guale.  
18 Q. And what is your occupation?  
19 A. I'm a forensic toxicologist.  
20 Q. What are some of your responsibilities in  
21 that position?  
22 A. I work for the Harris County Institute of  
23 Forensic Sciences. I am the Analytical Operations  
24 Manager of the toxicology section. I manage the  
25 day-to-day activities of the lab; I supervise the

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1 employees. I make sure the cases that we received  
2 took the regular testing dictated by the SOPs, and I  
3 make sure all the work is done, and the case is  
4 signed out.  
5 Q. Okay. And how long have you been so  
6 employed?  
7 A. Nine years.  
8 Q. And so, what type of background do you  
9 have -- scratch that.  
10 What type of educational background do  
11 you have?  
12 A. I have a degree of the Doctorate of  
13 Veterinary Medicine, and I also have a Master's  
14 Degree in Toxicology. And I'm double-board  
15 certified, one, by the American Board of Veterinary  
16 Toxicology; and another one by the American Board of  
17 Forensic Toxicology.  
18 Q. And in your current position, have you had  
19 an opportunity to participate in any studies or to  
20 publish any of your own work?  
21 A. Yes, I have published.  
22 Q. And would you mind describing some of those  
23 publications, and what they were regarding?  
24 A. The latest -- the previous one, it will  
25 be -- I have a couple of publications on Method

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1 Development, that means analytical methods, how to do  
2 testing. And then latest published method that I  
3 have is Screening Method for Designer Drugs Using  
4 State-of-the-Art Instruments such as TOF.

5 Q. Okay. And so, let's discuss a little bit  
6 about blood analysis. What role do you play in  
7 regards to blood analysis, in terms of the alcohol --  
8 I'm sorry, the ethanol concentration?

9 A. We do have a lot of internal trainings and  
10 external trainings about, you know, alcohol analysis;  
11 what are the commonly, you know, state of the art  
12 methods that we employ in our laboratory.

13 We use gas chromatography, which is  
14 the latest -- or the standard for alcohol. And we  
15 implement the latest method. And we do have a high  
16 standard of quality because we're accredited by two  
17 accreditation boards, that we're required to perform  
18 certain standards, which is the highest standard, and  
19 we implement those.

20 And we do train our analysts very  
21 well, and they are competent in performing the job.  
22 They do have an excellent proficiency to do; internal  
23 proficiency to do, and they are very competent  
24 individuals. And we stand by our work, with the  
25 high-quality work.

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1 Q. Okay. And so you mentioned the individuals  
2 who do the actual analysis, as far as -- so you have  
3 your analyst do the analysis, what role do you play  
4 in regards to that?

5 A. Mostly in the training. I write the SOPs,  
6 The Standard Operation Procedures, and train  
7 analysts.

8 Q. Okay. And so, throughout your training and  
9 through some of your research and experience, did you  
10 receive any training or education regarding the  
11 impact of alcohol on the body?

12 A. Yes.

13 Q. And what kind of training and education  
14 have you received on that subject?

15 A. When you do -- when I was in veterinarian  
16 college, we do have a course, a toxicology course.  
17 And that course -- in that course, you learn about  
18 the effects of drugs, chemicals, everything,  
19 including air and the water. And when you do a  
20 Master's in Toxicology, you're focusing on the  
21 toxicity of every drug and alcohol and intoxicants in  
22 the environment, and every intoxicant which is on the  
23 face of the earth. So, one of them is alcohol, which  
24 is actually a C-plus chemical on earth. So, I  
25 learned -- or we learned deeply about the effects of

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1 alcohol, then, when I was doing my master's. And,  
2 actually, on the workforce, that's practically  
3 applying what I learned there.

4 Q. Okay. And so, in your experience is  
5 there -- we understand that when you're analyzing the  
6 blood for ethanol, that analysis is done from the  
7 time of the blood draw. Is there any way to  
8 determine what that individual's ethanol level or  
9 blood-alcohol concentration may have been at the time  
10 that they were driving?

11 A. Yes.

12 Q. And what is that called, or how do you do  
13 that?

14 A. It's called "extrapolation." So, the first  
15 thing that you need is all their information. The  
16 first thing in your alcohol analysis -- or you have  
17 to know what level of alcohol is in that person's  
18 blood at a certain time. And then, for that, you  
19 need the demographic information of that person; that  
20 includes weight, height, the gender -- male or  
21 female. And then, whether they ate or not ate that  
22 day, all those informations are vital. And you just  
23 plug that into a formula, which has been established  
24 since long time ago.

25 Alcohol has been studied for more than

1 a hundred years. There's a formula derived -- a  
2 published extrapolation formula, you plug that  
3 information in that formula, and then the formula  
4 will tell you -- or calculate it for you, at what  
5 time and what level the alcohol would be in the  
6 person's system.

7 Q. And so, you mentioned some of these  
8 publications, and you described that there's a  
9 formula. Can you explain to us a little bit more  
10 about that formula and, kind of, how it works in  
11 determining -- you gave it to us, you know, broad,  
12 but just -- can you describe the formula a little bit  
13 more?

14 A. The original formula -- all the other, you  
15 know, little formats are done; it's called "The  
16 Widmark Formula." And that's, actually, it's a  
17 pharmacokinetic study. The way they study it is,  
18 they will give a person a certain amount of alcohol,  
19 and then they will monitor how much would be in the  
20 system by taking the blood at the certain period of  
21 time, and then make a calculation. You know, how  
22 much is absorbed, and how much is eliminated at what  
23 rate. So, that formula is derived from experimental  
24 studies so that we can use it now.

25 Because as any medication or as any



1 food or beverage that you are taking in, the body is  
2 going to absorb it, like, alcohol is going to be  
3 absorbed. The body will be absorbing it, and it will  
4 be distributed all over your body through the blood.  
5 And then, once it's distributed through the body, and  
6 then, it goes through metabolism, that means it  
7 changes by the liver. The liver has got enzymes to  
8 break the drug down. And then, it will eliminated at  
9 a certain rate by, you know, urine and breath and  
10 other sources of elimination.

11 So, all these are a hundred year's  
12 worth of experiments to derive that formula. And so,  
13 you just plug in the weight and all the demographic  
14 data and the times, and it will calculate it for you.

15 Q. Okay. And so within your agency, once you  
16 receive that information, you mentioned you plug it  
17 into something?

18 A. Yes.

19 Q. And what is that program called?

20 A. There's a software called "BAC-Tracker  
21 Software," where all these intricate formulas are put  
22 together so that the user can just put that  
23 information in. It's a very simple arithmetic.  
24 Like, it's just like using a calculator. You know,  
25 the formulas are plugged into the calculator, and the

1 software has got those formulas plugged in in there,  
2 and the software just calculates it out for you. But  
3 you have to put the information that needs to be put  
4 in. So, that's a software that we use instead of  
5 using a manual calculation and taking a lot of time.  
6 The software just calculates it for you; so, we call  
7 it BAC-Tracker.

8 Q. Okay. And so let me give you a  
9 hypothetical --

10 A. Okay.

11 Q. -- so we can test this. And I believe you  
12 mentioned you needed some variables?

13 A. Yes.

14 Q. And amongst those variables, do you need  
15 weight?

16 A. Weight, height, gender, what time the  
17 person start drinking, and what time the person  
18 stopped drinking. What time was the blood draw,  
19 whether the person was eating or no eating, when you  
20 know, drinking, and what time of the incident.

21 Q. Okay. So, let me give you a hypothetical  
22 now. I have a male about, maybe, around age 30, 180  
23 pounds, six feet. The time of the blood draw was at  
24 2:36 a.m. The time of the stop was at 1:41 a.m. The  
25 breath results -- sorry, the time of the first drink



1 was 6:00 p.m.; the time of the last drink was 12:00  
2 a.m. and the blood-alcohol concentration was a .136.  
3 Given that information, would you be able to make an  
4 educated determining of what the extrapolation could  
5 be?

6 A. Yes. Can I have my copy?

7 MS. WILLIAMS: Your Honor, may I  
8 approach the witness?

9 THE COURT: Yes.

10 Q. (BY MS. WILLIAMS) All right. So I have  
11 here what's been marked for demonstrative purposes as  
12 State's Exhibit No. 5.

13 THE COURT: Excuse me, you already  
14 have a State's Exhibit No. 5 in evidence. And so,  
15 why don't we give it a different number, if you'd  
16 like, an "A," a letter, so that we know to  
17 distinguish it.

18 A. So, based on the information that you --

19 MS. WILLIAMS: Okay. So, it's going  
20 to State's Exhibit A?

21 THE COURT: Yes.

22 Q. (BY MS. WILLIAMS) So, you have in front of  
23 you State's Exhibit A marked for demonstrative  
24 purposes. Do you believe this would aid the Court in  
25 understanding what you're about to explain?

1 A. Yes.

2 Q. Okay.

3 MS. WILLIAMS: Your Honor, at this  
4 time, I would like to move that State's Exhibit A be  
5 introduced into evidence for the purposes of this  
6 hearing.

7 THE COURT: All right. So, are you  
8 going to show it on the overhead or what?

9 MS. WILLIAMS: Yes, Your Honor, I'll  
10 show it on the overhead.

11 THE COURT: Okay. Is there any  
12 objection for purposes of this hearing?

13 MR. FLOOD: Well, I'd object because  
14 it's based on information -- two objections. One,  
15 it's based on information that's not presented in  
16 evidence. Specifically, the height and the weight of  
17 the individual, which are factors that the witness  
18 said she needed to make this calculation.

19 And two, that when asked if she could  
20 make this calculation, she needed to look at the  
21 computer program printout in order to do so. And, I  
22 think, the purpose of this hearing is to question the  
23 witness' personal knowledge and ability to be able to  
24 do it and explain it to the Court and not rely on a  
25 computer-generated printout. But my main objection

1 is, this is assuming hypothetical facts that were not  
2 admitted in evidence.

3 THE COURT: And to that objection your  
4 response is?

5 MS. WILLIAMS: Your Honor --

6 THE COURT: I didn't recall that  
7 testimony either.

8 MS. WILLIAMS: Your Honor, we were  
9 using this solely as a hypothetical to explain the  
10 science behind the retrograde extrapolation. And so,  
11 right now, it's solely a hypothetical.

12 THE COURT: Okay. Let me ask this:  
13 If we don't have that in evidence -- and I'm guessing  
14 the analyst and this witness don't know the defendant  
15 to be able to give that information, how is this  
16 relevant in our trial?

17 MS. WILLIAMS: Your Honor, the  
18 officer, is currently on recall. And so, we would  
19 need to recall the officer to have that testimony  
20 entered on the record.

21 THE COURT: The officer's here?

22 MS. WILLIAMS: I can get him here.

23 THE COURT: Well, considering we're  
24 supposed to be starting with the actual trial in  
25 front of the jury right now unless he's here when the

1 jury comes out, it's not going to work out so well  
2 for you.

3 For purposes of this hearing, just to  
4 try to move forward, I'll allow this exhibit. But I  
5 can promise you, that if you're not able to prove up  
6 the Mata factors, then, it's not coming in.

7 MS. WILLIAMS: Yes, Your Honor.

8 THE COURT: All right. Proceed,  
9 please.

10 MS. WILLIAMS: Your Honor, I have an  
11 additional copy of that report, would you like me to  
12 publish the actual State's Exhibit A or use a  
13 duplicate?

14 THE COURT: Yes, I would.

15 MS. WILLIAMS: May I approach the  
16 witness?

17 THE COURT: It doesn't matter, either  
18 one. Just -- let's go.

19 MS. WILLIAMS: Okay.

20 Q. (BY MS. WILLIAMS) All right. Dr. Guale,  
21 can you please -- you mentioned that you entered it  
22 into a program called "BAC-Tracker"?

23 A. Yes.

24 Q. And that offers you an analysis of what the  
25 potential breath -- blood-alcohol concentration could

1 have been at the time of driving?

2 A. Yes.

3 Q. Can you please point to -- using the  
4 exhibit -- point to where that is on the exhibit?

5 A. It's right here (indicating). BAC at grams  
6 per deciliter at the time of interest, which is 1:41.  
7 The BAC would have been .152 with a range being 0.012  
8 of uncertainty.

9 Q. Okay. And --

10 THE COURT: What is the last part?

11 THE WITNESS: This is a range  
12 plus/minus the .152. So, to give with that  
13 certainty, it could be plus 152, 0.012, or minus  
14 0.012. So, it's giving you a range. It's not a  
15 single point. It's giving a range plus/minus .012.

16 Q. (BY MS. WILLIAMS) Okay. And so -- now that  
17 we're able to look at this document, you mentioned  
18 certain formulas were mentioned to make this  
19 determination. As far as this analysis, what  
20 formulas were used?

21 A. For this one, I used all the formulas,  
22 that's the standard way of doing it. To give the  
23 defendant the benefit of the doubt, you use all  
24 formulas, and that would increase the uncertainty.  
25 That way, the range will be bigger. So, I used all

1 these, six formulas.

2 And the difference is really, really  
3 very small. But, you know, when this comes to the  
4 numbers, it may be significant. So, I used all these  
5 formulas, and the software uses the uncertainty with  
6 each formula and gives you the range.

7 Q. And you mentioned that you used all the  
8 formulas?

9 A. Yes.

10 Q. And what does that mean in terms of how  
11 this number came be -- does it mean that each formula  
12 is different, or is there a certain constant that's  
13 different amongst the formulas?

14 A. Yes. The constant amongst the formulas is  
15 probably the first -- the Widmark would use only the  
16 weight, but the other would consider, you know, the  
17 sex. And the other one would consider the body mass  
18 index, which is different from using a weight. The  
19 other one will put the body mass index, and the  
20 differences are listed here, actually. If you look  
21 at them, right here (indicating) are the differences.

22 So, in the Widmark, the volume of  
23 distribution is .68; the Watson is .67; the Forrest  
24 .72; the Seidl is .77; the Ulrich is .74, these are  
25 the differences. And Posey-Moz one, is the latest

1 one where it becomes .718.

2           So, if you look at this, the  
3 difference is very very small, but when you increase  
4 the variables, your uncertainty becomes larger. That  
5 means you get a very large range, which gives, you  
6 know, the benefit of the doubt larger, not smaller.  
7 If I use only one, the uncertainty would be narrower.  
8 So, this is to give the benefit of the doubt for the  
9 defendant. Use six formulas; have a larger range,  
10 and see where the extrapolation comes in.

11       Q.    Okay. And so, the formula that the  
12 BAC-Tracker uses uses all those formulas?

13       A.    Yes.

14       Q.    Why does this program use all of these  
15 formulas instead of choosing one or the other?

16       A.    The same reason I exactly say, because to  
17 increase all the variables. Like, everybody is  
18 different: the weight is different; the body mass  
19 index, because of the proportion between fat and  
20 water in your body that comes, you know, the six  
21 differences. And all the other variables are  
22 included in here; so, there's no variable untouched.  
23 That's why, you know, it's better to use all of  
24 them -- to include all of the variables.

25           THE COURT: Excuse me. I have a

1 question. I'm just going to jump in.

2           How can you use the one that requires  
3 the BMI, since we don't have that?

4           THE WITNESS: It's from the weight.

5           THE COURT: It guesimates it from --

6           THE WITNESS: From the weight, yes.

7 That formula has got a factor to give a range of BMI  
8 for that weight. So, that's one of the formulas that  
9 included in there.

10          THE COURT: So, even though others  
11 include the height and weight, that one then makes a  
12 guesstimate from those?

13          THE WITNESS: From the formula.

14          THE COURT: And which one is that?

15          THE WITNESS: I think it was Seidl

16 that would have the BMI measurement. I have the  
17 scientific published paper that I just give to  
18 counsel.

19          THE COURT: Okay. If we gave you a  
20 calculator, would you be able to do one of those  
21 equations with the information you're given without  
22 using BAC-Tracker?

23          THE WITNESS: I could only assume  
24 elimination. I could plug in this number and  
25 calculate to backtrack the number.



1 THE COURT: No, not using this.  
2 THE WITNESS: Yeah, I can do manual  
3 calculation using this formula.  
4 MR. FLOOD: Judge, just to clarify, we  
5 had a conversation in the back. Her calculations --  
6 and correct me if I'm wrong -- are based on  
7 Mr. Imrecke already being in the elimination phase.  
8 And one of the other variables is very important is  
9 the time of eating and what was eaten. The testimony  
10 was only: he had lots of chips and some sandwiches.  
11 So, even if the officer's brought back, they're not  
12 going to be able to fill in that factor. And she's  
13 included a 27-minute time of absorption.  
14 THE COURT: Is this an objection or --  
15 MR. FLOOD: I just -- I have this --  
16 THE COURT: You will get to cross.  
17 MR. FLOOD: It's a question, though,  
18 that she told me she can use the formula assuming  
19 elimination; but cannot calculate it without  
20 BAC-Tracker if he was still in the absorption phase.  
21 And that's why -- it just helps save time because she  
22 -- so -- I mean, I guess, I'll just stick with cross.  
23 THE COURT: I am curious, because, at  
24 one point, I wrote down that it was important -- and  
25 I remembered this anyway -- to know what they ate and

1 when; is that correct?  
2 THE WITNESS: Yes, you can plug in  
3 this.  
4 THE COURT: What if we don't know?  
5 THE WITNESS: You take an average. If  
6 you don't know, you take an average.  
7 THE COURT: An average of what?  
8 THE WITNESS: There are absorption  
9 constants that are plugged into the formula.  
10 THE COURT: So, we're supposed to  
11 assume something so we can get a range.  
12 THE WITNESS: Yes. Like for  
13 instance --  
14 THE COURT: Excuse me. Which is  
15 exactly what Mata says you can't do, isn't it?  
16 MR. FLOOD: That is correct, Judge.  
17 Can I just read you that one section?  
18 THE COURT: No, I remember it.  
19 I'm asking them.  
20 MR. FLOOD: That's correct, Judge.  
21 THE COURT: It sounds like your  
22 witness is doing, precisely, what Mata told us that  
23 we cannot do. And that's, guesstimate an average.  
24 Have y'all read that recently? maybe?  
25 Mata?



1 MR. SAWTELLE: I've read it.

2 THE COURT: Recently?

3 MS. WILLIAMS: Your Honor, with regard  
4 to the constant, right, whether the slow or fast  
5 absorption rate -- you're asking us whether she can  
6 guesstimate that average; is that what the question  
7 was?

8 THE COURT: I don't want  
9 guesstimations. I want a scientific calculation  
10 based on factors that our higher courts have told us  
11 are required before we're allowed to do this. And my  
12 recollection is that the whole issue in this -- am I  
13 remembering that the analyst was named McDougall or  
14 something --

15 MR. FLOOD: That's correct.

16 THE COURT: Yeah, that's it. -- and  
17 he testified to, Well, depending on these things that  
18 I don't know, it could be anywhere from this to this.  
19 And they said you can't do that under our law. And  
20 they would not allow it. And they set out the  
21 factors that are required.

22 And that's why I'm asking y'all if  
23 you've read Mata, recently, before this hearing?

24 MS. WILLIAMS: No, Your Honor, I  
25 didn't. But I was asking in regards to the constant.

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1 THE COURT: I got that. And, yet, I'm  
2 stuck on my issue here. And this is what y'all are  
3 going to have to answer to get past this hearing.  
4 I'm trying to help you out by pointing to where I'm  
5 having a difficulty. So, I'm going to take a couple  
6 minutes of recess and ask you to read Mata. You can  
7 borrow this one, and I'll look at my copy.

8 Do y'all want to read this? I'm  
9 offering it to you.

10 MR. SAWTELLE: We have it.

11 THE COURT: Perfect.

12 MR. FLOOD: May I say one short thing  
13 with respect to Mata?

14 THE COURT: If you must.

15 We're on the record, folks.

16 MR. FLOOD: There's an interesting  
17 piece of language in there talking about averages and  
18 absorption rates. And it says absorption and  
19 burn-off rates are highly variable in each  
20 individual. The, generally, accepted burn-off rate  
21 is about one beer per hour -- and it quotes, "average  
22 man." And Mata states, "However, the 'average man,'  
23 like, the average family with 2.4 children  
24 doesn't" --

25 THE COURT: Are you pointing out "one

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1 little thing," or giving an argument? Because it  
2 sounds, suspiciously, like an argument. So, I'm to  
3 ask you to hold onto that.

4 MR. FLOOD: Okay.

5 THE COURT: And I don't want  
6 conversation in this courtroom right now. I want  
7 them reading this case so they can answer my  
8 question.

9 MR. FLOOD: Yes, ma'am.

10 (Brief pause)

11 THE COURT: Have you had a sufficient  
12 opportunity of time to read this now?

13 MS. WILLIAMS: Yes, Your Honor. And  
14 before I discuss it -- quickly clarifying your  
15 concern so I can make sure that I understood it.  
16 Your concern was: Regarding the Mata facts, and  
17 whether or not the expert should be allowed to make  
18 estimations as to those factors?

19 THE COURT: Correct.

20 MS. WILLIAMS: I understand.

21 In regards to the weight and height,  
22 right now we wouldn't be able to give that in terms  
23 of trial unless the deputies were given the  
24 opportunity to come back. In terms of this hearing,  
25 in the hopes that they will get time to get back --

1 THE COURT: Why don't you ask the  
2 expert about those Mata factors, and whether she  
3 agrees if they're important.

4 MS. WILLIAMS: Yes, Your Honor.

5 Q. (BY MS. WILLIAMS) Let's discuss some of the  
6 factors and variables that are necessary to make a  
7 determination of whether you can extrapolation.  
8 Let's discuss the length of time and the time of the  
9 offense, is that something you find important?

10 A. Yes.

11 Q. Okay. And why?

12 A. The incident time and the time of the blood  
13 draw, we're talking about?

14 Q. Yes, ma'am.

15 A. So that is what's -- both are important for  
16 the calculation to work. Because you have a certain  
17 amount of alcohol at a certain amount of time, that's  
18 what the software uses to back extrapolate to the  
19 incident time, using also the first drink and the  
20 last drink; and it just makes a curve of those values  
21 and to see where that would be, whether that person  
22 was absorbing, would be absorbing, or eliminating.  
23 So, it will calculate that. So, it's very important  
24 for those points to be made. Otherwise, it will not  
25 work.

1 Q. Okay. As far as this extrapolation, were  
2 you given that information?

3 A. Yes.

4 Q. And let's discuss some other individual  
5 characteristics. Is it important to know the  
6 subject's weight?

7 A. Yes.

8 Q. And why?

9 A. Because the formula uses the weight in the  
10 distribution factor to see how the dose will be  
11 distributed at a given time. So, you have to have  
12 the weight plugged there, without the weight  
13 information the formula would not work.

14 Q. Without the weight information, why  
15 wouldn't the formula work?

16 A. Because of -- depending on -- alcohol  
17 distributes throughout your body depending on your  
18 weight and the amount water and the fat quality. A  
19 person who is drinking one drink and is a very small  
20 person, the alcohol is going to be distributed in a  
21 very small area. So, the concentration would be  
22 higher as compared to the person who drink one drink  
23 and then the alcohol is distributed all over that  
24 area, and the concentration would be small.

25 So, it would not be fair to assume a

1 small person and a large person would have the same  
2 concentration at the given time. So, the formula has  
3 to have that weight to determine at one time, that  
4 the alcohol concentration would be, that depends on  
5 the weight.

6 Q. Okay. And what about how much somebody has  
7 eaten, is that considered an important factor?

8 A. It is an important factor, in a sense. If  
9 you eat food, and it is actually absorbed -- and it  
10 is the type of food that you eat, can slow the  
11 absorption. Like, it's not the same as drinking  
12 alcohol on an empty stomach.

13 Like, if you eat steak, for instance,  
14 it's very proteinous. It's very areawide; it sits  
15 there in your stomach. So, the alcohol with that  
16 steak is not going to be moving into the intestines,  
17 as fast as the empty stomach with only the alcohol,  
18 that moves faster into the intestines.

19 So, that's what the difference is.  
20 Because it has to compete for absorption, you know,  
21 site. That's why it's a smaller moving -- or  
22 emptying. Your bowel empties that slowly, because it  
23 has to digest that meat; and at the same time, the  
24 alcohol is still in there. So, that's why it slows  
25 the absorption. So, at a given time, if a person

1 drinks a drink, one drink, without food it will go,  
2 probably, 30 minutes.

3 Within 30 minutes, that alcohol would  
4 be absorbed. But if a person just had steak before  
5 he drinks, it may take an hour or an hour and a half  
6 for that alcohol to be absorbed into the system. So,  
7 it's very important to have that fact.

8 THE COURT: Let me ask a question:  
9 So, if you don't know when someone ate food and what  
10 they ate at that time, it affects your ability to  
11 accurately extrapolate?

12 THE WITNESS: If you know exactly, the  
13 software allows you to put that information. If you  
14 know exactly what time, you can put that information.

15 THE COURT: No, that's what I'm  
16 telling you: If you don't know those things.

17 THE WITNESS: If you don't know the  
18 time or the steak, then, you just have to use the  
19 average.

20 Q. (BY MS. WILLIAMS) And by average, you're  
21 referring to the constant we see at the bottom?

22 A. Yes.

23 Q. That slow absorption rate and that fast  
24 absorption rate?

25 A. Yes. This is the slow absorption rate.

1 This is the factor that the computer will use. And  
2 fast absorption rate, this will be at 6.5. But this  
3 is -- you can put one, up to eight in here  
4 (indicating) for -- if you have some information, and  
5 you know for sure the person ate a steak before the  
6 alcohol -- or while he's drinking, you can put one  
7 here (indicating) and one here (indicating), and  
8 calculate the whole thing with a slow absorption.  
9 And -- or you can choose, depending on the  
10 information you have.

11 Q. Okay. And so to clarify, that means you do  
12 need to know that they ate?

13 A. Yes.

14 Q. But do you need to know, necessarily, need  
15 to know the exact time to use your calculation?

16 A. Not really. It's during the course of, you  
17 know, your drink you can either have it at the  
18 beginning or at the middle. It will not have that  
19 much of a significance, as long as they're eating,  
20 you know, the absorption is going to be slow.

21 Q. Okay. Can you just briefly explain why not  
22 knowing the time isn't that significant in terms of  
23 making that determination?

24 A. Because you may have, like, for instance,  
25 you drink -- you go out to the bar, and you start



1 drinking a couple of drinks, and then you start  
2 eating; you may have absorbed that much faster on an  
3 empty stomach. And then, you eat, and then you start  
4 drinking; and then, it's going to be slower. It will  
5 not have that much of a really, really a significant  
6 effect on the total, when you look at it, in general,  
7 the course of the time. For that particular time,  
8 yes, but when we're looking at the general area under  
9 the curve, it doesn't have that much of a  
10 significance. But if you know and you calculate it  
11 with slow absorption, you know you're giving the  
12 benefit of the doubt to the defendant.

13 Q. Okay. And in this particular case, were  
14 you given facts concerning whether the hypothetical  
15 individual had eaten or not?

16 A. Had eaten?

17 Q. Yes.

18 A. Yes.

19 Q. And so, let's discuss the importance of  
20 knowing the first drink. Is that something that's  
21 considered important in regards to extrapolation?

22 A. Yes.

23 Q. And what about knowing when the last drink  
24 was?

25 A. Yes, both are important. Because you can

1 construct this curve; that makes it more accurate.  
2 Yes, you can do extrapolation without that  
3 information, but it would be less accurate.

4 Q. Okay.

5 A. But we have here, the start time and the  
6 stop time and every information, so that would make  
7 it accurate.

8 Q. And how would that time interval make it  
9 more accurate?

10 A. Because from the total time -- because you  
11 have the end time here, what the concentration is,  
12 and the software can calculate how many drinks that  
13 that person should have drank to get to that level.  
14 This is the established fact through  
15 pharmacokinetics.

16 So, once it calculates, it will give  
17 you each time. If you look at this first, through  
18 all numbers, the time in 24 hours, it will give you  
19 at 18:00 there was zero alcohol; 18:20 there was .13  
20 alcohol. It gives you all the numbers at each hour,  
21 and then you can tell, you know, at what time.

22 THE COURT: Can I look at your copy?

23 THE WITNESS: Yes.

24 THE COURT: Thank you.

25 A. So, this is why it's important; it makes it



1 more accurate.

2 Q. (BY MS. WILLIAMS) Okay. And so -- and  
3 correct me if I'm wrong. Through the different  
4 formulae that's listed at the top, is it the same  
5 equation -- and we're trying to determine the  
6 constant that gets applied into that equation; is  
7 that a correct understanding?

8 A. Yes, it's the same formula. The difference  
9 is listed here on the volume of distribution. It's  
10 the same formula; the volume of distribution is going  
11 to be different for each. And then, all of them  
12 would have -- because the volume of distribution is  
13 different, all of them would have a different -- at a  
14 given time, the concentration may be a little  
15 different, a little bit, between all these six  
16 formulas by each time. So -- but it's the same known  
17 Widmark original formula that all these six formulas  
18 are built into.

19 Q. And to address the types of drinks -- or  
20 how -- is it important for extrapolation to know how  
21 many drinks this individual may have had?

22 A. Yes, it will calculate it. So, yes, it is.

23 Q. Okay. And why is that?

24 A. Because it's -- the formula is actually  
25 established based on what a standard drink is. One

1 standard drink is .6-ounce of pure alcohol. That is,  
2 one beer is considered one standard drink, which is  
3 5 percent alcohol. Or one glass of wine, which is 5  
4 ounces of wine is considered one standard drink.  
5 And, you know, one and a half shot, which is hard  
6 liquor, is considered one standard drink.

7 So, however, the concentration of  
8 alcohol -- how much of the concentration of alcohol  
9 it finds in your system, it came from there. So, it  
10 will back calculate it. How many drinks that person  
11 would have had, or how much of the total grams of  
12 alcohol that person would have had to get to this  
13 level of alcohol at this time is derived from this  
14 formula.

15 Q. So, have we -- are there any variables that  
16 you need in this hypothetical for extrapolation that  
17 you didn't receive in order to make an accurate  
18 estimation?

19 A. I have everything from this case.

20 Q. Okay. So, you have all the necessary  
21 information to make an educated --

22 A. Yes.

23 Q. Okay. And so, based on that, this is --  
24 would this estimation be accepted in the scientific  
25 community?

1       A.     These are all peer reviewed and published  
2     formulas. And -- everything here is published, and  
3     peer reviewed, so that means that's accepted by the  
4     scientific community.

5             MS. WILLIAMS: State passes the  
6     witness, Your Honor.

7             THE COURT: Mr. Flood, you may cross.  
8     Try to remember that the jury has been waiting for 35  
9     minutes again.

10            MR. FLOOD: Okay.

**CROSS-EXAMINATION**

12     BY MR. FLOOD:

13       Q.     So, you need to know -- I noticed on your  
14     chart that you presented, you estimated a 27-minute  
15     absorption time, correct?

16       A.     Yeah. Based on the area under the curve,  
17     you have to give it -- after the incident, it was  
18     additional 27 minutes that the person was absorbing.

19       Q.     Right. So, it's common knowledge, and you  
20     testified that a person can still be absorbing,  
21     meaning rising, from 30 minutes, up to two hours and  
22     even beyond two hours, right?

23       A.     If you stopped drinking at that incident  
24     time. Like, if he just stopped drinking at the  
25     incident time which 1:41, right? The incident time

1     is 1:41, where we go back and extrapolate to; and  
2     then you can give it two hours just for absorption,  
3     after that.

4       Q.     Right. So, the time of the last drink that  
5     you used here was 12:00 o'clock?

6       A.     Yes, that's what is given to me.

7       Q.     And then, you said that he would have  
8     stopped absorbing at 12:27?

9       A.     Yes.

10       Q.     That's what this is, military time, right  
11     here (indicating)?

12       A.     Yes.

13       Q.     Okay. So, you're only allowing 27 minutes  
14     for him to absorb, correct?

15       A.     I didn't --

16       Q.     The program did.

17       A.     -- the computer allowed it to go that way.  
18     Because depending on how much drinking -- he  
19     started -- based on the start time, like, he started  
20     at 6:00 o'clock, right, 6:00 p.m.? And then, he  
21     stopped at 12:00. So, what -- when the computer  
22     plugs in, and then, the concentration of the blood,  
23     you know, the blood value, it would calculate how  
24     many drinks that would be. And it gives it the same  
25     rate for all those hours. That means the person

1 should have been absorbing for about 27 minutes for  
2 all the drinks that he was drinking. That's why it  
3 was going only 27 minutes, based on the area under  
4 the curve.

5 Q. So, you're making a lot of assumption to  
6 plug this number into this computer program, right?

7 A. This is partly the facts that I'm given. I  
8 just put it in there, it just plugged it into the  
9 formula, and the formula gives that out.

10 Q. Like, you need to have the weight you put  
11 in?

12 A. Yeah.

13 Q. And you didn't do this calculation on your  
14 on, you put it into this BAC-Tracker?

15 A. Yes.

16 Q. And you let it calculate it?

17 A. Yes.

18 Q. And you put in the height that was given to  
19 you by the State?

20 A. Yes.

21 Q. Time of last drink?

22 A. Yes.

23 Q. And so you're -- and you're assuming that  
24 there was, like an even, perfectly  
25 spread-out-drinking pattern over the six hours of the

1 time period the State gave you, right?

2 A. Yes.

3 Q. But you don't know that, personally, to be  
4 true, right?

5 A. No.

6 Q. Do you know the alcohol concentration of  
7 the beverages?

8 A. No.

9 Q. And that's an important factor, that from  
10 all the peer-reviewed literature, that's something to  
11 take into consideration when doing extrapolation,  
12 right?

13 A. No, what you need to know is what's in the  
14 system. How much alcohol was in that person's  
15 system.

16 Q. Right.

17 A. It doesn't matter how many drinks. It will  
18 calculate it automatically for you. But what you  
19 need to know is how much it was at one time, and when  
20 does that person start drinking, and it would  
21 automatically draw it to you.

22 Q. Exactly. So, if there's a drink with  
23 higher alcohol -- you said you need to know how much  
24 alcohol is their system?

25 A. We know how much alcohol is in his system,

1 that's what the starting point is, we know that.  
2 Q. Okay. Well, the information you were given  
3 was three drinks over six hours?  
4 A. The number of drinks really, really doesn't  
5 matter.  
6 Q. Okay. It doesn't when you're trying to  
7 figure out the drinking pattern to do extrapolation,  
8 right? If a person drank more towards the end, that  
9 would affect their absorption rate, correct?  
10 A. Correct.  
11 Q. Okay. And you don't know that factor,  
12 you're assuming an average absorption rate, right?  
13 A. Yes.  
14 Q. Okay. And even though a person can be  
15 absorbing for up to two hours here -- so, you can do  
16 an extrapolation, provided the person is in the  
17 elimination phase, correct?  
18 A. Yes.  
19 Q. Okay. Here you don't know about what he  
20 ate, right?  
21 A. No.  
22 Q. Okay. So, with 27 minutes allowed for  
23 absorption, that's assuming he was drinking on an  
24 empty stomach, did you factor that in?  
25 A. What -- the factor that I use is average.

1 Q. Okay. So here's the averages down here at  
2 the bottom.  
3 A. Yes.  
4 Q. This is different absorption rates?  
5 A. Yes.  
6 Q. Right?  
7 A. Yes.  
8 Q. Slow would be a 2.5 -- and this isn't,  
9 like, hours or anything, right?  
10 A. No, it's the half-life -- would come with  
11 the first order of absorption. The half life would  
12 be the alcohol absorption.  
13 Q. This one (indicating) would be 6.5, right?  
14 A. Yes.  
15 Q. Okay. But you don't know what his  
16 absorption rate was, correct?  
17 A. No, just -- the computer assumes the  
18 average.  
19 Q. Okay. I'm going to try to ask just  
20 yes-or-no questions, so I can conclude the hearing  
21 faster --  
22 THE COURT: Thank you.  
23 Q. (BY MR. FLOOD) -- if that's okay with you?  
24 A. Sure.  
25 Q. Did you know what his absorption rate was

1 to plug into the computer program?

2 A. No.

3 Q. All right. So, you used an average

4 absorption rate, correct?

5 A. Yes.

6 Q. Okay. If you used a slow absorption rate,

7 then this number would be different, correct?

8 A. Could be, yeah.

9 Q. And it could be up to two hours, correct?

10 A. It's my experience that two hours -- I

11 haven't seen, even with the slowest absorption, the

12 maximum I saw is one and a half hours.

13 Q. Okay. You've given me peer-review

14 articles. You have Garrote [phonetic] here, which I

15 know you're familiar with.

16 A. Yes.

17 Q. It's a treatise on -- do you want me to

18 show you all the literature that talks about how a

19 person can be absorbing for two hours or more?

20 A. No, no, no, I know about that.

21 Q. So you're --

22 A. I know the literature says that, but

23 this --

24 Q. I'm not asking what you have seen. I'm

25 asking what the scientific community agrees to.

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1 A. Correct. You're correct.

2 Q. A person can be absorbing for up to two

3 hours or more, right?

4 A. Yes.

5 Q. And that depends on certain variables that

6 you don't know in this situation, right?

7 A. Yes, correct.

8 Q. But in this case, if he was absorbing for

9 two hours, then this number right here (indicating)

10 would be different, correct?

11 A. The peak time, yeah, would be different,

12 yes.

13 Q. If you used midnight as the time of the

14 last drink, then this would be 2:00 o'clock?

15 A. 2:00 o'clock, yes.

16 Q. Okay. And the time of interest, which you

17 say right here (indicating) is 1:41?

18 A. Yes.

19 Q. So, he would still be absorbing. If you

20 knew those variables, instead of guessing an average,

21 if you knew that, this -- he could still be in the

22 absorption phase at the interest time, right?

23 A. Could be.

24 Q. And so -- but you had to put in variables

25 into that program that are assumptions, correct?

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1       A.     Correct.

2       Q.     Correct. Now, I don't know if you read

3       that Mata case, but I know you're familiar with the

4       variables needed to do a proper extrapolation,

5       correct?

6       A.     The one that I just used.

7       Q.     Okay. Are you also familiar with the

8       strong warnings and cautions about trying to predict

9       a BAC when the person is still in the absorption

10      phase? Do you know the difficulties associated with

11      that?

12      A.     Yeah, it could be variable, we know that.

13      It could be variable.

14      Q.     In fact, all of the peer-review literature

15      puts extreme caution on even attempting to

16      extrapolate, when a person is in the absorption

17      phase, right?

18      A.     Yes, it could be variable. I agree.

19      Q.     So, you said to me, that you can calculate

20      the Widmark formula if you know the person is already

21      eliminating, right?

22      A.     Yes.

23      Q.     Okay. And that's based on this 27-minute

24      absorption phase?

25      A.     Yes.

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1       Q.     Which is even lower than 30 minutes, which

2       is commonly referred to as the fastest a person could

3       absorb, right?

4       A.     Fastest is 15 minutes, actually.

5       Q.     And that's based on some average between

6       those two numbers here (indicating) that we're just

7       guessing at, right?

8       A.     Yes.

9       Q.     So, the person -- if Mr. Imrecke was, in

10      fact, still in the absorption phase -- going up --

11      you can't calculate that, can you, manually? You

12      would have to use that BAC-Tracker to calculate that,

13      right?

14      A.     I would say because it has the logarithms

15      of this number and that number at specific times, so

16      it would be really long for me to calculate that,

17      where you have a calculator right there.

18      Q.     And I asked you about this. You would have

19      to use this BAC calculator to figure that for you,

20      right?

21      A.     If I know the person is absorbing, yes, I

22      will let the BAC-Tracker calculate it for me, instead

23      of me trying to calculate it.

24      Q.     And generally, it's not common practice for

25      any lab professionals or colleagues to attempt to

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1 extrapolate back into the absorption phase, right?

2 A. Correct.

3 Q. Okay. It's fraught with difficulties, and

4 you're well aware of that, right?

5 A. It's just -- only because you cannot do the

6 uncertainty and all those assumptions -- variable

7 assumptions that, you know, we cannot just go and

8 just calculate it.

9 Q. Okay.

10 A. It needs to go through some logarithmic

11 calculations, you know, additionally, with absorption

12 constant. See, for the elimination, because there is

13 a constant rate, it's very easy to calculate that.

14 But while the person is absorbing, this exponential

15 and logarithmic calculations, so -- which -- so, you

16 need a calculator for that instead of you trying to

17 figure it out.

18 Q. Okay. And you said you would need the

19 computer program to figure it out?

20 A. Yes.

21 Q. So, just to summarize, the assumptions

22 you're making are his height and his weight?

23 A. Those are not assumptions those are facts.

24 Q. Okay. You need to know information about

25 when he ate to determine his absorption rate?

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1 A. Yes.

2 Q. And we don't have that here. So, you're

3 assuming an absorption?

4 A. Yes.

5 Q. And did you manually pick that and, say,

6 let's just assume this for this calculation?

7 A. No. I just plug the lowest in and highest

8 in, and the computer will do the average.

9 Q. The average?

10 A. Yes.

11 Q. Not based on facts that we know, just

12 computer average?

13 A. Yes.

14 Q. And those are the important factors to be

15 able to give an accurate BAC if the person is in the

16 elimination phase?

17 A. Yes.

18 Q. It becomes much more difficult, during the

19 absorption phase, right?

20 A. It just increases the range; that's all it

21 does really.

22 Q. The rate of error, right?

23 A. Yeah. But the rate of error increases, and

24 then your range is going to be increased.

25 Q. And so, you said you give the benefit of

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1 the doubt to the -- you said "defendant"; I'll call  
2 him Mr. Imrecke -- by reporting the lowest BAC from  
3 the analysis, right?

4 A. Yes.

5 Q. Okay. Well, you gave this wide range of  
6 BACs here, right?

7 A. Yes.

8 Q. From here to here (indicating on State's  
9 Exhibit A)?

10 A. Uh-huh.

11 Q. And you reported it to be based on the  
12 assumptions .152?

13 A. Yes.

14 Q. Well, this isn't giving him the benefit of  
15 the doubt, is it? Because if you look at the lowest  
16 one -- and this isn't in color -- but I think we  
17 determined that this bottom one is the Seidl?

18 A. Yes.

19 Q. That is well below .152, and that's not  
20 giving him the benefit of the doubt. You're  
21 averaging all of these formulas, aren't you?

22 A. Yes.

23 Q. Okay. Do you know how to calculate the  
24 Watson formula by hand?

25 A. The Watson formula?

1 Q. Right here (indicating).

2 A. Yeah. I mean, like I said, the differences  
3 of the -- there are factors that's given over there.

4 Q. And the Seidl formula, you can write these  
5 out by hand --

6 A. Yeah.

7 Q. -- and calculate them without the  
8 BAC-Tracker?

9 A. Well, really the formula is already out  
10 there. I mean --

11 Q. I'm asking if you can do this and explain  
12 how these formulas work: Ulrich, Forrest, not  
13 Widmark, Seidl, Watson, and then one was developed by  
14 Dr. Mozayani?

15 A. Yeah. She just averaged them; that's all.

16 Q. Okay. You didn't do this calculation; it  
17 was just put into the software that y'all purchased?

18 A. Yeah.

19 Q. Just plug in the numbers and then you let  
20 it generate this report and that's what you rely on?

21 A. Yeah.

22 Q. Okay.

23 MR. FLOOD: I'll pass the witness.

24 MS. WILLIAMS: Brief redirect, Your  
25 Honor, if I may?

1 THE COURT: I have a question. And I  
2 want y'all to address my question after I ask it.

3 If we were to assume the slowest  
4 absorption rate, then what would the extrapolation be  
5 for the time of stop at 1:41? Using all your other  
6 factors.

7 THE WITNESS: Yeah. It would be a  
8 little bit smaller, but I don't know.

9 THE COURT: But you can't tell us  
10 what?

11 THE WITNESS: I can't tell you. I'd  
12 have to have the BAC-Tracker to change that number on  
13 the bottom. Can you pull that one up?

14 THE COURT: Could you do any of those  
15 off the top of your head with a calculator without  
16 the BAC-Tracker?

17 THE WITNESS: With the absorption rate  
18 constant, no, I can't. But -- only elimination I  
19 can.

20 THE COURT: So you're telling me, if  
21 he was in absorption still, when he was stopped, you  
22 can't extrapolate?

23 THE WITNESS: Manually, no, I cannot  
24 extrapolate.

25 THE COURT: But you're saying this

1 thing can do it?

2 THE WITNESS: Yes.

3 THE COURT: Because it assumes  
4 something?

5 THE WITNESS: Yes.

6 THE COURT: Questions?

7 MS. WILLIAMS: Questions of your  
8 question, or redirect?

9 THE COURT: Either one.

10 MS. WILLIAMS: Your Honor, I do have  
11 some questions.

12 THE COURT: Well, let's make it  
13 snappy.

14 MS. WILLIAMS: Okay.

15 **REDIRECT EXAMINATION**

16 **BY MS. WILLIAMS:**

17 Q. I would just like to clarify a few things  
18 with you, if you don't mind, Dr. Guale. This number  
19 right here, this 27 minutes --

20 A. Yes.

21 Q. -- you originally testified that that would  
22 be after the time of the incident; is that correct?

23 A. It would be 27 minutes after the stop of  
24 the drink.

25 Q. All right. And so, in this case, the

1 report says that the time of the stop was 1:41 --  
2 A. Yes.  
3 Q. -- is that correct?  
4 A. Yes.  
5 Q. And so, originally, defense presented it as  
6 midnight; is that correct?  
7 A. Midnight is the time where the person  
8 stopped drinking.  
9 Q. Okay.  
10 A. Yeah.  
11 Q. And so, the time of the last drink --  
12 A. Yes.  
13 Q. -- and just so we can clarify, was  
14 midnight?  
15 A. Yes.  
16 Q. The time of the stop was 1:41?  
17 A. Yes.  
18 Q. And your paperwork is actually saying he  
19 came out of absorption 27 minutes after that stop --  
20 A. Yes.  
21 Q. -- is that correct?  
22 A. And so --  
23 THE COURT: Meaning, 2:08 then? 2:08  
24 a.m., did I do that right?  
25 THE WITNESS: No, before the incident.

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1 THE COURT: Okay. We're all saying  
2 different stuff. He thinks you mean 12:27 a.m. is  
3 when --  
4 THE WITNESS: It peaked -- he peaked.  
5 MR. FLOOD: Right.  
6 THE COURT: 12:27?  
7 THE WITNESS: Yes, he stops absorbing.  
8 THE COURT: Before the stop?  
9 THE WITNESS: Yes, before the  
10 incident, yes. I like to call it "time of interest,"  
11 1:41, yeah.  
12 THE COURT: But they think you mean 27  
13 minutes after the stop if I'm understanding  
14 correctly. Which is it?  
15 THE WITNESS: No, that's 27 minutes  
16 after the last drink, which is 12:00 o'clock.  
17 THE COURT: Okay. So, 12:27 a.m.  
18 is --  
19 THE WITNESS: The stop.  
20 THE COURT: -- the end of  
21 absorption --  
22 THE WITNESS: Yes.  
23 THE COURT: -- according to this?  
24 THE WITNESS: Yes.  
25 THE COURT: That isn't what you were

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1 just saying, I think.

2 MS. WILLIAMS: No, Your Honor, I was  
3 attempting to clarify. I think we're getting there.

4 Q. (BY MS. WILLIAMS) Okay. So, that  
5 absorption rate, that 27 minutes --

6 A. Yes.

7 Q. -- I guess. The questions we have -- where  
8 all parties seem to have -- is that 27 minutes after  
9 he stopped drinking at midnight, or after he was  
10 stopped at 1:41 in the morning, an hour and 41  
11 minutes after his last drink?

12 A. After he stopped drinking at 12:00 o'clock,  
13 12:27 he stopped absorbing. At the time of the  
14 incident, which 1:41, he was eliminating according to  
15 this.

16 Q. Okay. And so, would it be possible, if you  
17 wanted, for the benefit of this subject, if you  
18 wanted to, could you calculate using the slow  
19 absorption rate, and then calculate also using the  
20 fast calculation rate?

21 A. Individually? Yes, I can do that with the  
22 software.

23 Q. So, if we were to say we wanted to do this  
24 at the benefit of the defendant -- I'm sorry, at the  
25 subject, and do it at the slowest absorption rate,

1 you can do that with your program?

2 A. Yes.

3 Q. And speaking of BAC-Tracker, is BAC-Tracker  
4 a program -- in terms of extrapolation, is that  
5 something that's accepted within the scientific  
6 community?

7 A. Yes.

8 Q. And how do you know? How do you know  
9 that's accepted within the scientific community?

10 A. It's published.

11 Q. There's information published on  
12 BAC-Tracker?

13 A. Yes. There's a manual for it. And then,  
14 there's also publications in there, and I gave it to  
15 the defense counsel.

16 Q. Do you think that that might be something  
17 that could assist the Court in better understanding  
18 the program?

19 A. Yes. There's a manual for each thing,  
20 which the software assumes and doesn't assume. It's  
21 listed in there, in the manual.

22 MS. WILLIAMS: Your Honor, may I  
23 approach the witness?

24 THE COURT: Yes, but it's really not  
25 going to help me.

1           MS. WILLIAMS: You'll find that it's  
2 not helpful --  
3           THE COURT: This software isn't  
4 helping me on her personal understanding of the  
5 equations of the formula, and not just plugging  
6 something into a computer. Because it seems like  
7 you, or I could data entry -- or enter that data  
8 ourselves without understanding a darn thing. And  
9 what we have to prove under Mata and the other cases,  
10 before this goes to the jury, is that she can  
11 calculate it without that; that she can explain it.  
12 And so, that's why that's not helpful to me.  
13           MS. WILLIAMS: Yes, Your Honor.  
14           THE COURT: And so, the answer we are  
15 consistently getting, at this point, is that she  
16 could do it with her software. I'm not hearing the  
17 other.  
18           So, what we're going to do now is  
19 we're going to recess this hearing, and we're going  
20 to go into testimony with the jury. And then, we'll  
21 have a hearing over lunch. We'll finish this hearing  
22 over lunch and decide whether she'll be testifying to  
23 the jury after lunch. We have left them for almost  
24 an hour, again, in the jury room. And I just find  
25 that unconscionable.

1           All right. So, that was my mistake in  
2 thinking we could do this, and I will own up to the  
3 jury.  
4           Take a quick break, and then we're  
5 going to be starting with the jury.  
6           (Recess taken)  
7           THE BAILIFF: Please rise for the  
8 jury. Everybody stand up.  
9           (Jury enters the courtroom)  
10          THE COURT: You may be seated. Let  
11 the record reflect that the parties and jurors are  
12 present and seated in the courtroom.  
13          Folks, it's on me. I've been trying  
14 to finish the hearing that we were doing, and it took  
15 a lot longer than I thought. So, again, I apologize  
16 for keeping you in the jury room, but now we're ready  
17 to proceed with testimony.  
18          Call your next witness.  
19          MS. WILLIAMS: State calls Kimberly  
20 Peterson.  
21          THE COURT: Thank you.  
22          THE BAILIFF: Your Honor, this witness  
23 has not been sworn.  
24          THE COURT: Would you please raise  
25 your right hand?

1 (Witness sworn)  
2 THE COURT: All right. Come on up.  
3 (Witness complies)  
4 THE COURT: Thank you.  
5 You may proceed.  
6 MS. WILLIAMS: Thank you, Your Honor.  
7 **KIMBERLY PETERSON,**  
8 having been first duly sworn, testified as follows:  
9 **DIRECT EXAMINATION**  
10 BY MS. WILLIAMS:  
11 Q. Will you please introduce yourself to the  
12 jury?  
13 A. My name is Kimberly Peterson. That's  
14 P-E-T-E-R-S-O-N.  
15 Q. What is your occupation?  
16 A. I'm a Toxicologist III at the Harris County  
17 Institute of Forensic Sciences.  
18 Q. And what is a toxicologist?  
19 A. A toxicologist performs scientific tests on  
20 body fluids and tissue samples in order to determine  
21 if there's any drugs or chemicals present in the  
22 body.  
23 Q. And how long have you been so employed?  
24 A. I've been employed at Harris County for  
25 about a year and a half.

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1 Q. And have you always held this position?  
2 A. Yes.  
3 Q. And so, can you explain what some of the  
4 duties are of the current position?  
5 A. Yes. My primary duty is to analyze the  
6 tissue samples and blood for the presence of ethanol  
7 or the other volatiles.  
8 Q. Okay. And you mentioned you work for the  
9 Harris County Institute of Forensic Sciences, what  
10 accreditations does that laboratory hold?  
11 A. We have three accreditations. The first  
12 one is the American Board of Forensic Toxicology or  
13 ABFT. Another one is the American Society of Crime  
14 Laboratory Directors Laboratory Accreditation Board  
15 International or ASCLAD/LAB for short. And the third  
16 is the Texas Forensic Science Commission.  
17 Q. Now, there -- out of one of those  
18 accreditations that you mentioned, one of them is  
19 very important. Which one and why is it so  
20 significant?  
21 A. Well, all of the accreditations are  
22 important. We -- the entire lab is accredited on a  
23 national level, a state level, as well as, an  
24 international level. And each of these  
25 accreditations requires that we follow strict

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1 standards in order to obtain the accreditations from  
2 that body, as well as, undergo regular inspections to  
3 maintain that accreditation.

4 Q. All right. So now can you discuss with us  
5 your educational background?

6 A. Yes. I graduated in 2012 with a Master's  
7 of Science in Forensic Science from California State  
8 University Fresno. And I also, have bachelors'  
9 degrees in both biology and anthropology, which I  
10 received from Central Washington University in 2008.

11 Q. All right. And what specific training have  
12 you received in the area of ethanol analysis?

13 A. Since, I've been employed at Harris County  
14 I was required to undergo an alcohol training  
15 program, and that included performing competency  
16 tests, as well as, passing a written examination.  
17 Once I completed that, I was considered sign-off and  
18 able to participate in proficiency examinations,  
19 which are where a third party assigns testing and  
20 will review or grade my results.

21 Q. All right. And do you have any  
22 certifications relevant to this area?

23 A. Yes. I am certified by the American Board  
24 of Forensic Toxicology, which is one of the  
25 accrediting bodies I mentioned earlier as a

1 diplomate.

2 Q. All right. And have you testified as an  
3 expert witness in the area of forensic toxicology  
4 before?

5 A. Yes.

6 Q. And has that been on few or many occasions?

7 A. Few.

8 Q. And does that include expert testimony in  
9 the courts of this county?

10 A. Yes.

11 Q. And so -- just so we can know, about how  
12 many blood DWI trials have you testified in so far?

13 A. I believe this is my seventh time  
14 testifying.

15 Q. Okay. Now, can you explain to the ladies  
16 and gentlemen of the jury, the science behind  
17 blood-alcohol testing?

18 A. Yes. So, for blood-alcohol testing at  
19 Harris County, we use a method, which is an  
20 instrument called the -- I'm sorry, the method is  
21 called headspace gas chromatography.

22 MS. WILLIAMS: Your Honor, may I  
23 approach the witness?

24 THE COURT: Yes.

25 Q. (BY MS. WILLIAMS) I have what's marked for

1 demonstrative purposes, State's Exhibit No. 19, do  
2 you recognize this?

3 A. Yes.

4 Q. And do you believe it would aid the jury in  
5 understanding gas chromatography and how it works --

6 MR. FLOOD: Judge, to save time, I'll  
7 stipulate to the predicate and admissible, if that's  
8 okay.

9 MS. WILLIAMS: Okay. At this time,  
10 State moves to introduce what's previously been  
11 marked as State's Exhibit No. 19 into evidence.

12 MR. FLOOD: No, objection.

13 THE COURT: State's 19 is admitted.

14 MR. FLOOD: I'm sorry, I thought they  
15 were offering it for demonstrative purposes, and  
16 that's what I agree to.

17 MS. WILLIAMS: We will use it for  
18 demonstrative purposes, Your Honor.

19 THE COURT: Thank you. That is how it  
20 is admitted, then.

21 MS. WILLIAMS: Your Honor, may I  
22 publish?

23 THE COURT: Yes, ma'am.

24 Q. (BY MS. WILLIAMS) Okay. Now, can you began  
25 to explain the science behind the blood testing in --

1 specifically, the gas chromatography?

2 A. So gas chromatography headspace is the  
3 method we use at our lab, and it's the most popular  
4 or commonly used method to determine ethanol or blood  
5 alcohol in forensic laboratories. It's very  
6 sensitive, as well as accurate, and it's, as I  
7 mentioned, a way to determine the amount of ethanol  
8 or alcohol in a sample.

9 Q. And has the science behind this been,  
10 generally, accepted in the field?

11 A. Yes.

12 Q. And has that technique been tested in  
13 actual field conditions?

14 A. Yes.

15 Q. And has that technique be subject to peer  
16 review and publication?

17 A. Yes.

18 Q. So, that technique has been accepted within  
19 the relevant scientific community?

20 A. Yes.

21 Q. And how do you know that?

22 A. It's considered the gold standard for  
23 testing blood alcohol or ethanol, and it's been  
24 published in hundreds of articles.

25 Q. All right. So, can you explain, in the



1 simplest manner, kind of, how this process works in  
2 terms of testing the ethanol in someone's blood?

3 A. Yes. So, we're able to determine the  
4 amount of ethanol in a blood or tissue sample because  
5 of Henry's Law in action.

6 And Henry's Law is just a scientific  
7 rule, essentially, that states that at a constant  
8 temperature in a closed system or container, there's  
9 a relationship between the amount of ethanol or  
10 alcohol in the actual blood, in comparison to the  
11 space above the actual blood, which is in the picture  
12 referred to as the headspace.

13 And so, that picture shows a vial that  
14 we actually would use to test a sample with that  
15 closed container; so, we're able to test the  
16 headspace and get the amount of alcohol present in  
17 the sample.

18 Q. And since we're looking at a PowerPoint --  
19 and you may have addressed this -- you mentioned  
20 headspace, what is headspace?

21 A. Headspace is just the space above the  
22 sample.

23 Q. Okay. And what happens -- okay. So, can  
24 you, kind of, tell us a little bit more about the  
25 process of analysis?

1 A. Yes. I actually have more detail in the  
2 future slide, as far as the actual testing. Once the  
3 sample is introduced on the instrument -- would you  
4 like me to explain that first, or explain the slide  
5 that's listed?

6 Q. You can explain that first.

7 A. Explain which one first, I'm sorry?

8 Q. The slide that's listed.

9 A. Okay. So, this slide, kind of, shows the  
10 beginning of our process. So prior to running any  
11 samples -- case samples on the instrument, which is  
12 shown up there, I will have to do what is referred to  
13 as instrument calibration.

14 And the calibration is -- just  
15 consists of six standards, which are from a third  
16 party, and they contain a known amount of alcohol in  
17 them. And so, what we're doing is we run them on the  
18 instrument; and we know that they must fall within a  
19 narrow range. So, by running those and knowing that  
20 the instrument is able to correctly determine the  
21 amount in those standards, we're, then, able to  
22 proceed with putting our case samples on the  
23 instrument.

24 Q. Okay. If you need to, you can just tell me  
25 when you would like to have the next slide.

1 A. Okay.

2 Q. Okay. So, how does your lab receive the

3 blood specimen that is to be tested?

4 A. So, an officer will bring the sample to our

5 laboratory and give it to one of our evidence

6 technicians; the evidence technicians will then take

7 the sample, which also comes with -- the sample is

8 sealed, and it also comes with paperwork and enter

9 that into our laboratory information system or

10 database. There labels -- there the system will

11 generate a unique identifier for that case, and then

12 it's brought to our toxicology department for

13 testing.

14 The toxicologist department -- one of

15 the evidence technicians, will then open up the

16 actual evidence, make sure that everything is

17 properly labeled, take pictures of the tubes, and

18 then actually place labels onto the tubes. And then

19 from there, they'll place them into a locked

20 refrigerator, where an analyst, such as myself, will

21 be able to access the refrigerator to perform the

22 testing.

23 Q. All right. And in regards to these blood

24 vials, does your lab have any special requirements

25 for the blood vials that are submitted?

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1 A. Yes. We would prefer two gray-topped

2 tubes. We also -- we require the correct paperwork

3 is received with the tubes and that the evidence

4 container is sealed.

5 Q. And how are blood vials tracked, once your

6 lab has taken custody?

7 A. So as I mentioned previously, our

8 toxicology technicians will label the tubes, and so

9 each of the tubes has a label specific to that case.

10 In addition to that, every analyst has

11 their -- has a barcode with a unique identifier only

12 known to that individual. And so, when I take a

13 sample into my custody, I will scan that sample, and

14 then enter my barcode, and it's tracked in our

15 information system.

16 MS. WILLIAMS: Your Honor, at this

17 time may I approach to --

18 THE COURT: Yes.

19 MS. WILLIAMS: Your Honor, may I

20 publish?

21 THE COURT: Yes.

22 Q. (BY MS. WILLIAMS) Looking at State's

23 Exhibit No. 15, do you see that barcode?

24 A. Yes.

25 Q. Okay. And from that barcode, are you able

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- 1 to identify this blood vial?
- 2 A. Yes.
- 3 Q. And what is that unique barcode?
- 4 A. The barcode is what the toxicology
- 5 technician has placed -- I'm sorry, the evidence
- 6 technician has placed with that case once it was
- 7 received by our laboratory.
- 8 Q. And what is the lab number associated with
- 9 this case?
- 10 A. It's IFS14-16245.
- 11 Q. And how many vials are associated with this
- 12 case?
- 13 A. Two.
- 14 Q. And did you analyze the blood contained in
- 15 this vial to determine its alcohol content?
- 16 A. Yes.
- 17 Q. And how does your lab ensure that all the
- 18 samples that are submitted for testing, are tested in
- 19 the exact same manner every time, every-single-time?
- 20 A. We follow a standard operating procedure.
- 21 Q. And we spoke of the instrument earlier, was
- 22 the instrument that you used to test this blood, was
- 23 it working properly?
- 24 A. Yes.
- 25 Q. And does that instrument require

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- 1 maintenance, I think, you addressed it on the
- 2 previous slide about calibration?
- 3 A. Yes. They're -- we are required to do a
- 4 date-of-use maintenance on the day that I plan to
- 5 run. We do preventive maintenance, and then
- 6 as-needed maintenance, as well as yearly maintenance.
- 7 Q. All right. And -- like I said, just let me
- 8 know if you need a new slide. Before testing the
- 9 samples, what is the first step in ensuring that the
- 10 instrument and standards are correct?
- 11 A. I believe that was what I, kind of,
- 12 explained previously. To make sure that the
- 13 instrument is working correctly, I'll run three
- 14 negative quality controls. Those just contain
- 15 negative blood; so, it doesn't have any alcohol in
- 16 it. As well as, an internal standard, which is just
- 17 a compound that is structurally similar to alcohol.
- 18 So, it will behave on the instrument similarly to
- 19 alcohol.
- 20 So, we can be confident that if it's
- 21 in those samples -- if we added it to the sample and
- 22 it behaves on the instrument the way that we predict
- 23 it should, then we can use that as a ratio to
- 24 determine how much alcohol is present in the sample.
- 25 Q. And you mentioned standards, where do the

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1 standards come from?

2 A. Our standards come from a third party that  
3 is -- that has to be deemed acceptable by our  
4 accrediting bodies.

5 Q. And how does your lab ensure -- there's  
6 quality controls ensured with the results?

7 A. We have to have negative -- so between  
8 every ten samples, they must be bracketed by two  
9 quality controls, which are -- must fall within that  
10 same narrow range. The instrument must be able to  
11 detect those within a narrow range.

12 We also -- our testing process  
13 requires that we receive two tubes. So, we will  
14 screen on one tube, which just means we're  
15 determining if there is ethanol present. And then on  
16 the second tube, we will confirm to determine how  
17 much ethanol is actually present.

18 And on that confirmation test, we are  
19 required to put a negative quality control, which I  
20 mentioned earlier, that does not contain any ethanol.  
21 And so, that is just to ensure that the instrument is  
22 not -- is able to correctly determine the amount of  
23 ethanol in the sample, as well as, ensure that there  
24 is no carryover from one sample to the next.

25 Q. And how do these quality-control samples

1 affect the validity of the samples that come before  
2 and after that?

3 A. So the quality controls -- if we know that  
4 they must fall within a strict range, and they fall  
5 within that strict range, then we can be confident  
6 that the instrument is correctly able to determine  
7 the amount of ethanol in those results, which ensures  
8 that the instrument can correctly determine the  
9 amount of ethanol in our case samples.

10 Q. And what happens if the quality-control  
11 checks that are in place, do not function the way  
12 they are designed?

13 A. So, if the quality controls fall outside of  
14 the range, we must -- we must go back to the last  
15 acceptable quality control and reinject from that  
16 point. So, start the run over from that point. And  
17 we only have one opportunity to restart the run. If  
18 it's outside of the range again, we have to repeat  
19 those samples on a different day.

20 Q. All right. And so, will a sample that it  
21 tested before or after be reported as final if the  
22 quality-control checks don't check properly?

23 A. No. We will have to repeat that sample  
24 once the problem is rectified.

25 Q. Okay. And in this particular instance, did



1 you follow the protocol for testing the blood using  
2 that machine?

3 A. Yes.

4 Q. And -- now, referring back to State's  
5 Exhibit No. 15, were these the vials of blood taken  
6 from the defendant -- sorry.

7 Were these vials of blood taken from  
8 the defendant, were these the ones that you analyzed?

9 A. Yes.

10 Q. And you mentioned earlier that there's two  
11 vials, did you test both vials?

12 A. Yes.

13 Q. And what is the purpose of doing that?

14 A. So we test -- we designate one, the A Tube;  
15 and the second tube will be the B Tube. And, I  
16 think, I might have mentioned this, but the A Tube is  
17 used to screen, just to detect if ethanol is present.  
18 And the B Tube is to confirm and really determine how  
19 much ethanol is present.

20 Q. All right. And -- now, let's say that you  
21 tested both vials, and you have results for both  
22 vials, how close does that first run have to be to  
23 the second run to qualify as a valid test?

24 A. So, the values of both tubes must be within  
25 5 percent of one another for us to report the value.

1 Q. Okay. And why does it have to be within  
2 5 percent?

3 A. That's according to our standard operating  
4 procedures.

5 Q. Now, in this particular case, did you have  
6 two runs that were within 5 percent of each other?

7 A. I, actually -- I had to run this -- I had  
8 to perform the tests on the samples three times. And  
9 our standard operating procedures do allow me to run  
10 a total of three times if need be. And because I ran  
11 a screen on Tube A, and then I performed the  
12 confirmation on the B Tube, those two values were not  
13 within 5 percent. So, our standard operating  
14 procedures require that I take the lower -- the tube  
15 associated with the lower result and perform a test,  
16 a third test on that. And so, I did do that. And  
17 that result was within 5 percent of one of the other  
18 results, so I was able to report my result.

19 Q. Okay. So -- correct me if I'm wrong. Just  
20 to summarize, so you followed the lab's protocol,  
21 correct, did you follow the lab's protocol?

22 A. Yes.

23 Q. And you ultimately reran Tube A, is that an  
24 accurate understanding?

25 A. I believe it was Tube A -- may I refer to



1 my notes just to double-check?

2 THE COURT: Yes.

3 THE WITNESS: Thank you.

4 A. Yes, that's correct.

5 Q. (BY MS. WILLIAMS) And after rerunning Tube

6 A, was it then -- was that third run within 5 percent

7 of the second run?

8 A. Yes.

9 Q. And does your lab -- luh-bor-ra-to-ry or

10 lab-ruh-tory policy or protocol, allow you to report

11 the result at that time?

12 A. Yes.

13 Q. And with that, what did those results --

14 what were you able to tell -- to determine from those

15 results?

16 A. I was able to determine that the sample did

17 have ethanol present.

18 Q. And what were you able to determine about

19 the reliability of the test or the accuracy of your

20 tests?

21 A. Because I was able to get two tests within

22 our narrow range of 5 percent, that lets me know that

23 the test is accurate, sensitive, and also reliable,

24 and repeatable.

25 MS. WILLIAMS: Your Honor, may I

1 approach the witness?

2 THE COURT: Yes, ma'am.

3 MS. WILLIAMS: Thank you.

4 Q. (BY MS. WILLIAMS) I'm showing you what's

5 previously been marked as State's Exhibit 20. And do

6 you recognize it?

7 A. Yes.

8 Q. And how are you able to recognize it?

9 A. It has our Harris County Institute of

10 Forensic Sciences' letterhead. The laboratory number

11 is the same as this case. I, also, recognize my name

12 as the analyst, as well as the technical and expert

13 reviewers.

14 Q. Okay. And is this a true and correct copy

15 of the lab results stemming from the analysis of a

16 Mr. Daniel Bryant Imrecke?

17 A. Yes.

18 Q. And has it been altered in any way?

19 A. No.

20 Q. And is this -- was this made at or near the

21 time of the analysis that we were discussing?

22 A. Yes.

23 Q. And was it made in the ordinary course of

24 business for your lab?

25 A. Yes.

1 Q. And were you able to --

2 MS. WILLIAMS: Your Honor, at this  
3 time, I'd like to move to introduce what's been  
4 previously marked, as State's Exhibit 20 into  
5 evidence.

6 May the record reflect that I'm  
7 tendering to opposing counsel.

8 MR. FLOOD: I'm thinking -- I do have  
9 an objection. Is it okay if we approach?

10 THE COURT: Yes.

11 (Discussion at the Bench, on the  
12 record)

13 MR. FLOOD: Your Honor, I hate to do  
14 this again, but based on her testimony and the  
15 discovery that we got, that what she just said, the  
16 proper procedures were not applied correctly, on the  
17 occasion in question, for this result to be reported.

18 And I can show that through the  
19 documents I received in discovery. And I would move  
20 to suppress --

21 THE COURT: What is the problem?

22 MR. FLOOD: Okay. Well, it was tested  
23 three times. The first time it was tested, the  
24 quality controls were not in tolerance, and we have  
25 that documented. And according to her testimony,

1 then, they have to run it again. The second time is  
2 the one that's reported, and the quality controls  
3 were within the check. The sample was then tested a  
4 third time, and there's no 5-percent agreement,  
5 according to their procedures. And she reported the  
6 higher number, which is not in accordance with their  
7 procedures. She got the first one and the second one  
8 were within 5 percent, but it was based on faulty  
9 quality controls.

10 THE COURT: For the first one?

11 MR. FLOOD: For the first one. So,  
12 there's no two that are within the 5 percent, that  
13 are based on quality controls that are within  
14 tolerance, and she said she can't report it unless  
15 that happens.

16 MS. WILLIAMS: Your Honor, can I  
17 address that?

18 THE COURT: Yes.

19 MS. WILLIAMS: So from my  
20 understanding of her testimony, Tube A, and Tube B,  
21 Tube A was the first run; Tube B was the second run.  
22 As she stated, Tube B was done correctly. And so,  
23 because the issue was with Tube A, she reran Tube A a  
24 third time, as she's allowed to. Tube A and Tube B,  
25 the second and the third were then within that

1 5-percent range, and she is allowed to report the  
2 number at that point, based on what I listened to of  
3 her testimony.

4 MR. FLOOD: Right. But the documents  
5 show it went: B, A, A, and B was first, and it was  
6 out of tolerance on three of the controls. And so,  
7 it was run again. And so, the number that's being  
8 reported is what we have. But then, it was run  
9 again; and it came back at a .128 on the A. So, the  
10 A is being reported, but it was analyzed again; and  
11 the second time it was out of 5 percent. So, we  
12 don't have anything --

13 THE COURT: I'm going to send them for  
14 lunch --

15 MR. FLOOD: Okay.

16 THE COURT: -- the jury.

17 MR. FLOOD: I was hoping lunch would  
18 be here earlier, maybe.

19 THE COURT: I think they're going out.

20 MR. FLOOD: And I was going to just  
21 cross on this, Judge, but I can't forego an  
22 objection, based on a third prong of Kelly.

23 THE COURT: Prime, take them out.

24 I'm going to send y'all to lunch.

25 THE BAILIFF: Please rise.

1 (Jury leaves courtroom)

2 THE COURT: You may be seated. We're  
3 still on the record.

4 Mr. Flood, would you like to take the  
5 witness on voir dire with regard to State's 20?

6 MR. FLOOD: Yes, ma'am, I would.

7 VOIR DIRE EXAMINATION

8 BY MR. FLOOD:

9 Q. You provided discovery with respect to the  
10 three different analyses of this blood result?

11 A. Yes.

12 Q. IFS14-16245, that's the lab number we're  
13 dealing with, correct?

14 A. Yes.

15 Q. It was originally analyzed on December 17th  
16 of 2014?

17 A. Yes.

18 Q. And --

19 MR. FLOOD: May I approach the  
20 witness?

21 THE COURT: Yes.

22 Q. (BY MR. FLOOD) I'm going to show you what's  
23 been marked as Defense Exhibit 3. Is that a copy of  
24 the chromatogram of this blood analysis from December  
25 17th, 2014?

1 A. Yes.  
2 Q. Okay. And I'm showing you what's marked as  
3 Defense Exhibit No. 4, 5, 6, 7, 8, and 9, and if you  
4 could, look at those and tell me if you recognize  
5 those and if they pertain to the blood analyses with  
6 respect to this lab number in this case?  
7 A. Well, these -- I believe, that one is from  
8 the 17th runs, correct --  
9 Q. Correct.  
10 A. -- and these are from the 22nd.  
11 Q. Right. So, do you recognize that as a  
12 quality control from the second run on December 22nd?  
13 A. Yes.  
14 Q. Okay. For this sample?  
15 A. No.

16 THE COURT: Which exhibit are you  
17 talking about?

18 MR. FLOOD: This is Defense Exhibit  
19 No. 4. Well, let me --

20 Q. (BY MR. FLOOD) It was in the batch with  
21 this sample, correct?

22 A. No, I --

23 Q. The second analysis of this blood analysis  
24 was on December 22nd, right?

25 A. So, the analysis of -- this is Tube A --

1 Q. Okay. This is Defense Exhibit 3.

2 A. Yes. And the standards -- this is  
3 associated with the data. This is raw data from the  
4 calibration curve before it was calibrated for Tube  
5 B on the 22nd.

6 Q. Right. But --

7 A. But this is not the complete information  
8 from the calibration run.

9 Q. I know. I'm just asking, though, the  
10 second analysis of this sample was run December 22nd,  
11 correct?

12 A. Yes, that's correct.

13 Q. And that's the one that's being reported,  
14 right?

15 A. That's not the final result. The final  
16 result that is on the report was associated with  
17 Tube A, which was run on the 24th, I believe.

18 Q. So, there's a fourth run?

19 A. No, that's the third run. These -- this  
20 calibration curve raw data is from the 22nd, but I  
21 also ran Tube A on the 24th.

22 Q. Okay. So, you analyzed it on the 17th --  
23 what dates did you analyze this blood?

24 A. I ran Tube A on the 17th, Tube B on the  
25 22nd, and then Tube A on the 24th.

1 Q. Of December?

2 A. Yes.

3 Q. And it was never analyzed again?

4 THE COURT: I'm sorry, I need to write  
5 that down, and I wasn't quick enough. Tube A on the  
6 17th?

7 THE WITNESS: Tube A on the 17th, Tube  
8 B the 22nd, and then Tube A on the 24th.

9 THE COURT: Thank you.

10 Q. (BY MR. FLOOD) And then that's all, just  
11 three times?

12 A. Yes. For the alcohol testing, yes.

13 Q. It was never tested again for alcohol?

14 A. No, not to my knowledge.

15 Q. Okay. Let's see. So, do you have -- so,  
16 the 24th is the one that's being reported, correct?

17 A. Yes.

18 Q. Okay. And do you have -- do you have a  
19 copy of the analysis for the 22nd?

20 A. The actual result of the -- tube results?

21 Q. Right.

22 A. Yes.

23 Q. Okay. So, you recognize 4 through --  
24 Defendant's 4 through 9, as they relate to the sample  
25 that was tested on the 22nd -- I'm sorry, I misspoke

1 on the dates?

2 A. Yes, I recognize this data.

3 Q. Okay. And the -- okay. So --

4 MR. FLOOD: Your Honor, I'd like to  
5 tender to opposing counsel 3 through 9 and ask that  
6 they be admitted for the purposes of this hearing.

7 THE COURT: Is there any objection?

8 MR. SAWTELLE: He handed us multiple  
9 documents; we're just going over them because we've  
10 never seen them before.

11 THE COURT: Okay.

12 MR. SAWTELLE: And we'd ask for, like,  
13 a minute.

14 MS. WILLIAMS: State has no  
15 objections, Your Honor.

16 THE COURT: All right. Defense 3  
17 through 9 are admitted for purposes of this hearing.

18 Q. (BY MR. FLOOD) Okay. Do you have a copy of  
19 the result from the 22nd?

20 A. I have the original copy.

21 Q. Okay.

22 THE COURT: Which of your exhibits are  
23 you talking about?

24 MR. FLOOD: It's one that I still need  
25 to introduce. I'm sorry, I got confused with the



1 dates for a second.

2 Q. (BY MR. FLOOD) I'm marking this as Defense  
3 Exhibit 10. And is this the analysis from the 22nd?

4 A. Yes.

5 Q. Okay.

6 MR. FLOOD: And I tender this to  
7 opposing counsel, also, I'd ask that it be admitted  
8 for the purposes of this hearing.

9 MS. WILLIAMS: No objection, Your  
10 Honor.

11 THE COURT: Defense 10 is admitted for  
12 this hearing.

13 Q. (BY MR. FLOOD) So you stated that if the  
14 two tests -- you're only allowed to analyze the blood  
15 three times, right?

16 A. Yes.

17 THE COURT: Excuse me. Is that per  
18 vial, or is that overall?

19 THE WITNESS: Overall. After we -- if  
20 I was to perform it three times and they didn't  
21 match, after that, then, I would have to take it to a  
22 manager and they would make a decision.

23 THE COURT: Thank you. I just wanted  
24 clarification.

25 Q. (BY MR. FLOOD) Okay. So here's Defense

1 Exhibit No. 3. And this would be the analysis run on  
2 December 17th, right?

3 A. Yes.

4 Q. Okay. So, this represents the first  
5 analysis, right?

6 A. Yes.

7 Q. And then, you see the ethanol result here  
8 is .128, correct?

9 A. Yes.

10 Q. So -- then, I'm showing you what's marked  
11 as Defense Exhibit No. 10. And this is also the same  
12 lab number, right?

13 A. Yes.

14 Q. Analyzed on December 22nd, correct?

15 A. Yes.

16 Q. And we see an ethanol concentration -- or  
17 BAC, I'm sorry, of .139?

18 A. Yes.

19 Q. Do you have a calculator with you?

20 A. No.

21 Q. Okay. You don't argue with me that that's  
22 not within 5 percent, correct?

23 A. Yes, that's correct.

24 Q. So, that's outside of the required lab  
25 procedures, right?

1 A. It's outside of my ability to report either  
2 of those values.  
3 Q. Okay. So, you can't report them if they're  
4 outside of the 5-percent lab policy, right?  
5 A. Not at this point, no.  
6 Q. And that goes to -- I mean, for  
7 accreditation, you've got to have certain policies  
8 that are required to be followed, right?  
9 A. Yes.  
10 Q. Okay. And so, this is December 22nd. And  
11 for that batch, there's more -- you're talking about  
12 the importance of the quality controls to be within  
13 the tolerance range, right?  
14 A. Yes.  
15 Q. And you admitted that there were some  
16 problems, that there were some quality controls that  
17 were outside of the tolerance range?  
18 A. No, I did not admit to that.  
19 Q. Okay. So, this is Defense Exhibit No. 4.  
20 And here we have December 22, right?  
21 A. Yes.  
22 Q. Same day that you analyzed the second  
23 analysis, which was a .139, right?  
24 A. Yes.  
25 Q. And you see this is the Vial 1 of 1. This

1 is a .025 standard, right?  
2 A. Yes.  
3 Q. And so, here's (indicating) the acceptable  
4 tolerance range, right?  
5 A. Yes.  
6 Q. .022 to .027, right?  
7 A. Yes.  
8 Q. And let's look and see -- we have .027,  
9 right? So, it's at the top, within the tolerance  
10 range, right?  
11 A. Yes. I also -- can I explain something  
12 about that chromatogram?  
13 Q. I was asking a yes-or-no question.  
14 THE COURT: Can she please answer it  
15 for my purposes?  
16 (Affirmative response)  
17 THE COURT: Thank you. I appreciate  
18 it.  
19 THE WITNESS: Can you put it back on  
20 the screen.  
21 (Mr. Flood complies)  
22 THE WITNESS: So, the way that our  
23 instrument works is, we will -- I'll run that  
24 calibration curve, which consists of the six  
25 standards that I referred to earlier. And what

# **EXHIBIT #5**

## **CALIBRATION CURVE & CHROMATOGRAMS**

### **DEFENDANTS:**

**DANIEL IMRECKE  
JOSE DELACRUZ**

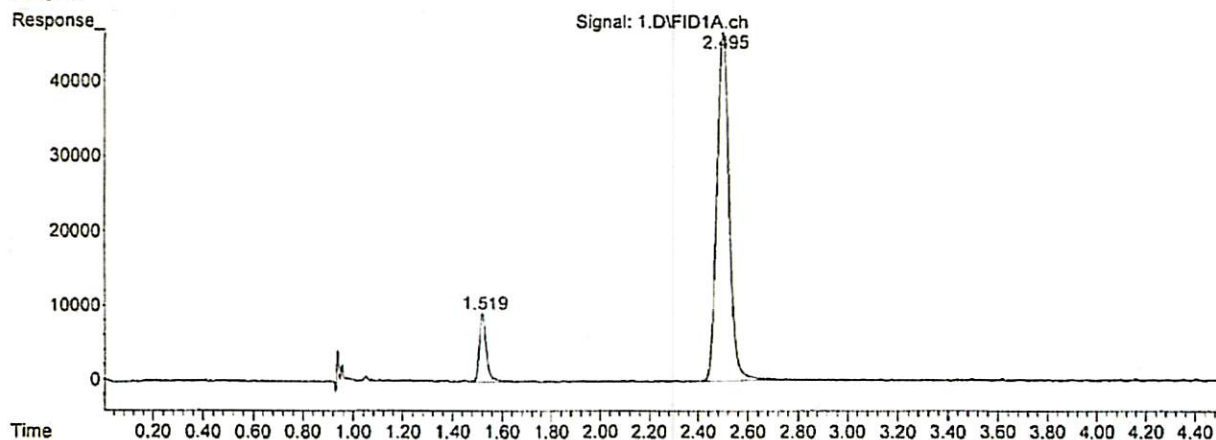
(Court transcripts for each case  
located in section 4)

74p

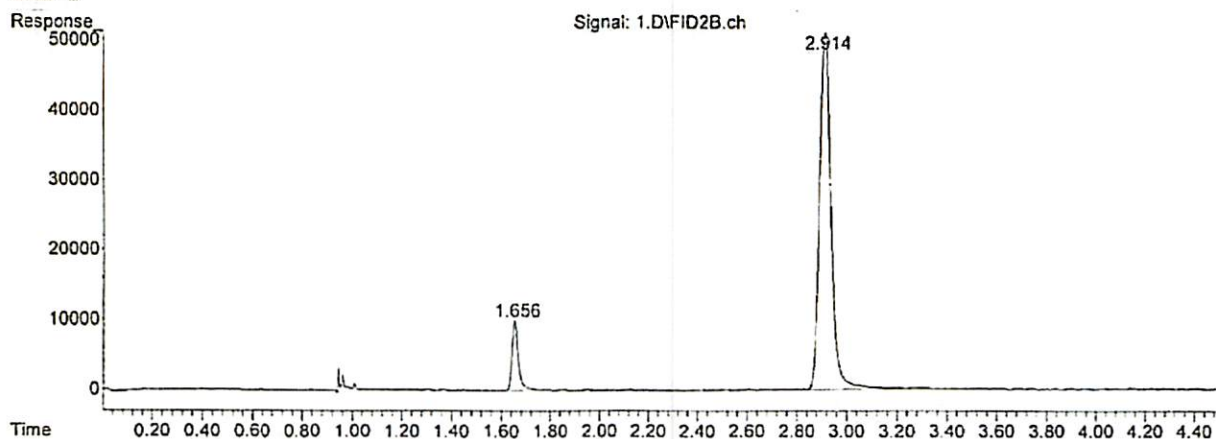
## Harris County Institute of Forensic Sciences

Sample Name 0.025 STD Instrument Name GC-2  
 Misc Info RANGE (0.022-0.027)  
 Tray/Vial 1/1 Operator KP  
 Date Acquired 12/22/2014 7:56 Acq. Method File ALCOHOL.M  
 Data File Name 1.D Last Calibrated Mon Dec 22 08:01:07 2014  
 Data Path C:\MSDCHEM\1\DATA\DECEMBER 2014\122214\_ETOH CALIBRATION CURVE\1.D

## BAC-1



## BAC-2

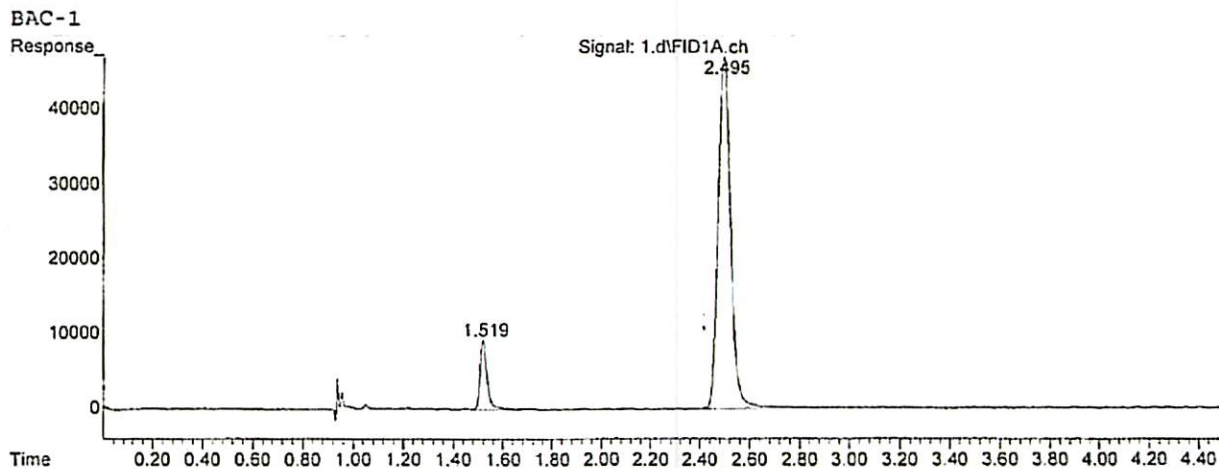


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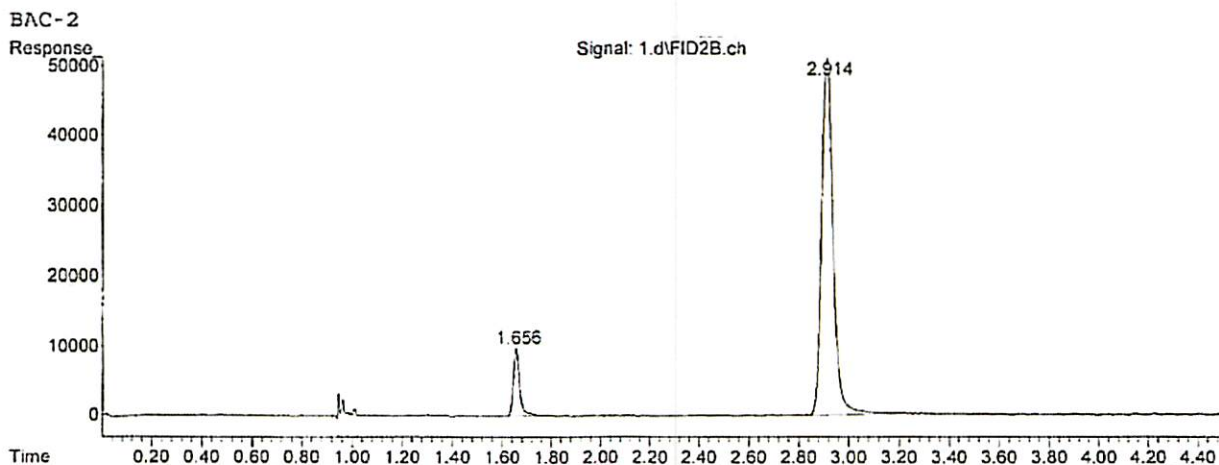
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Harris County Institute of Forensic Sciences

Sample Name 0.025 STD Instrument Name GC-2  
 Misc Info RANGE (0.022-0.027)  
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 Data File Name 1.D Last Calibrated Mon Dec 22 08:40:52 2014  
 Data Path C:\msdchem\1\data\DECEMBER 2014\122214\_ETOH CALIBRATION CURVE\1.D



Name	Ret Time	Amount (g/dL)	Target Response (Area)
METHANOL	0.000	0.000	0
ACETONE	0.000	0.000	0
i-PROPANOL	0.000	0.000	0
n-PROPANOL	2.495	0.020	1630036
ETHANOL	1.519	0.024	181911



Name	Ret Time	Target Response (Area)
METHANOL #2	0.000	0
ACETONE #2	0.000	0
i-PROPANOL #2	0.000	0
n-PROPANOL #2	2.914	1648580
ETHANOL #2	1.656	173775

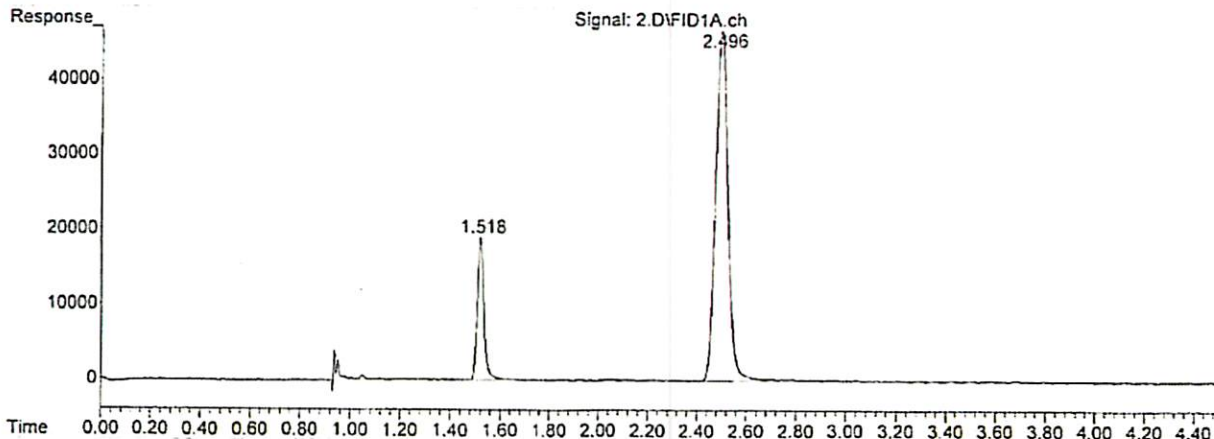


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Harris County Institute of Forensic Sciences

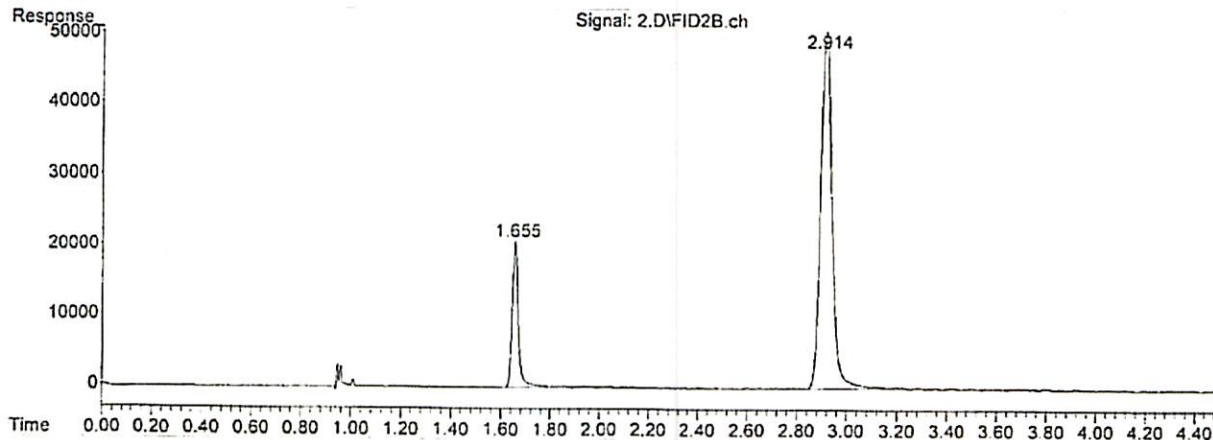
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 Misc Info RANGE (0.047-0.052)  
 Tray/Vial 1/2 Operator KP  
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 Data File Name 2.D Last Calibrated Mon Dec 22 08:09:04 2014  
 Data Path C:\MSDCHEM\1\DATA\DECEMBER 2014\122214\_ETOH CALIBRATION CURVE\2.D

BAC-1



Name	Ret Time	Amount (g/dL)	Target Response (Area)
METHANOL	0.000	0.000	0
ACETONE	0.000	0.000	0
i-PROPANOL	0.000	0.000	0
n-PROPANOL	2.496	0.020	1621381
ETHANOL	1.518	0.052	351547

BAC-2



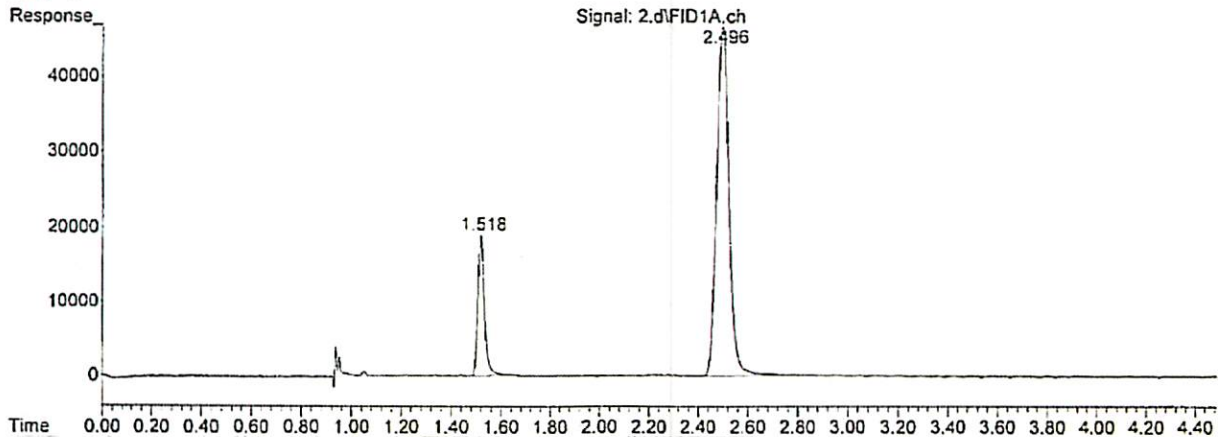
Name	Ret Time	Target Response (Area)
METHANOL #2	0.000	0
ACETONE #2	0.000	0
i-PROPANOL #2	0.000	0
n-PROPANOL #2	2.914	1639481
ETHANOL #2	1.655	360243

7p

Harris County Institute of Forensic Sciences

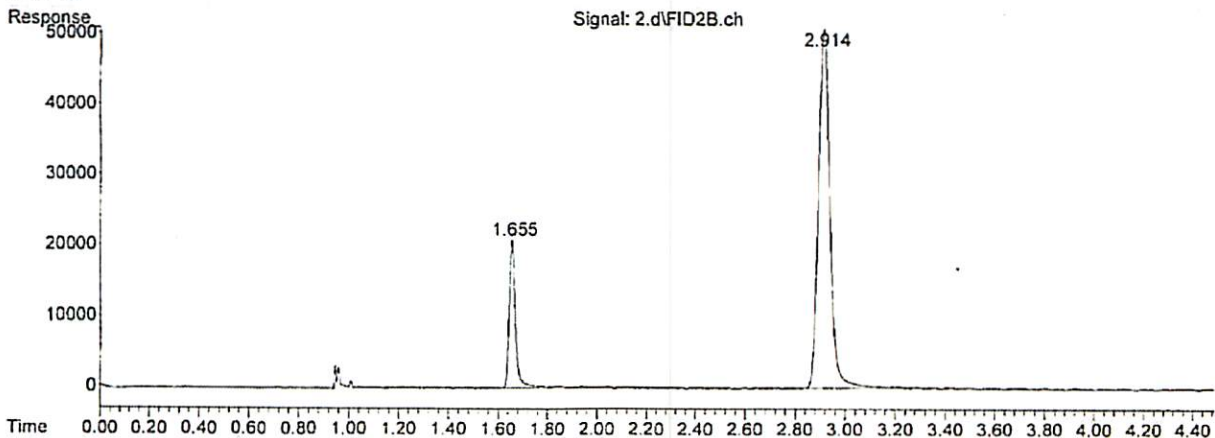
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BAC-1



Name	Ret Time	Amount (g/dL)	Target Response (Area)
METHANOL	0.000	0.000	0
ACETONE	0.000	0.000	0
i-PROPANOL	0.000	0.000	0
n-PROPANOL	2.496	0.020	1621381
ETHANOL	1.518	0.047	351547

BAC-2



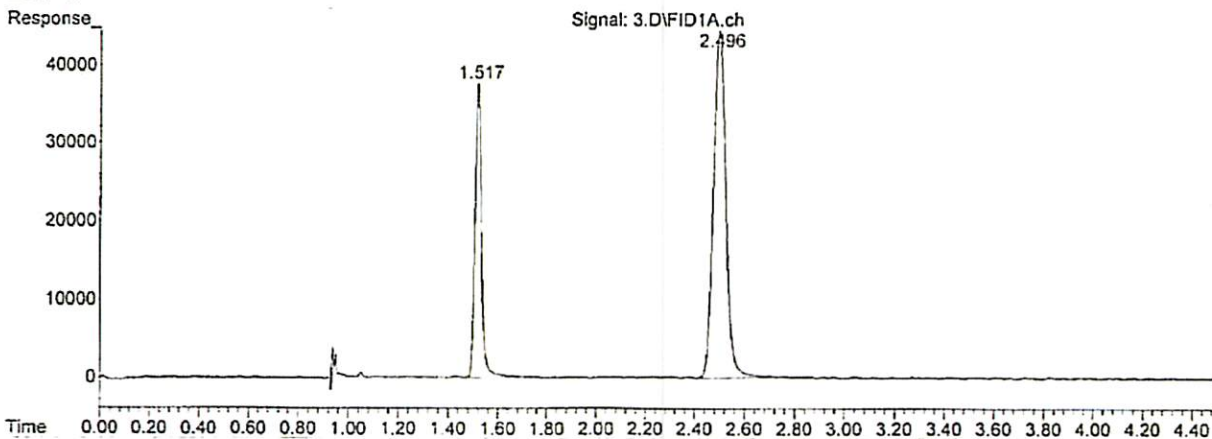
Name	Ret Time	Target Response (Area)
METHANOL #2	0.000	0
ACETONE #2	0.000	0
i-PROPANOL #2	0.000	0
n-PROPANOL #2	2.914	1639481
ETHANOL #2	1.655	360243

KP

Harris County Institute of Forensic Sciences

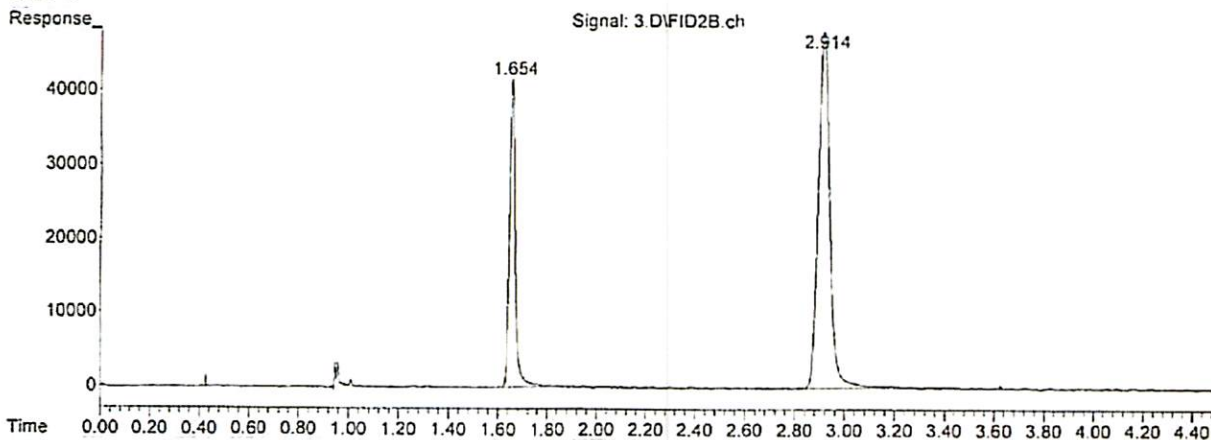
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 Misc Info RANGE (0.095-0.105)  
 Tray/Vial 1/3 Operator KP  
 Date Acquired 12/22/2014 8:12 Acq. Method File ALCOHOL.M  
 Data File Name 3.D Last Calibrated Mon Dec 22 08:17:00 2014  
 Data Path C:\MSDCHEM\1\DATA\DECEMBER 2014\122214\_ETOH CALIBRATION CURVE\3.D

BAC-1



Name	Ret Time	Amount (g/dL)	Target Response (Area)
METHANOL	0.000	0.000	0
ACETONE	0.000	0.000	0
i-PROPANOL	0.000	0.000	0
n-PROPANOL	2.496	0.020	1546187
ETHANOL	1.517	0.108	690646

BAC-2

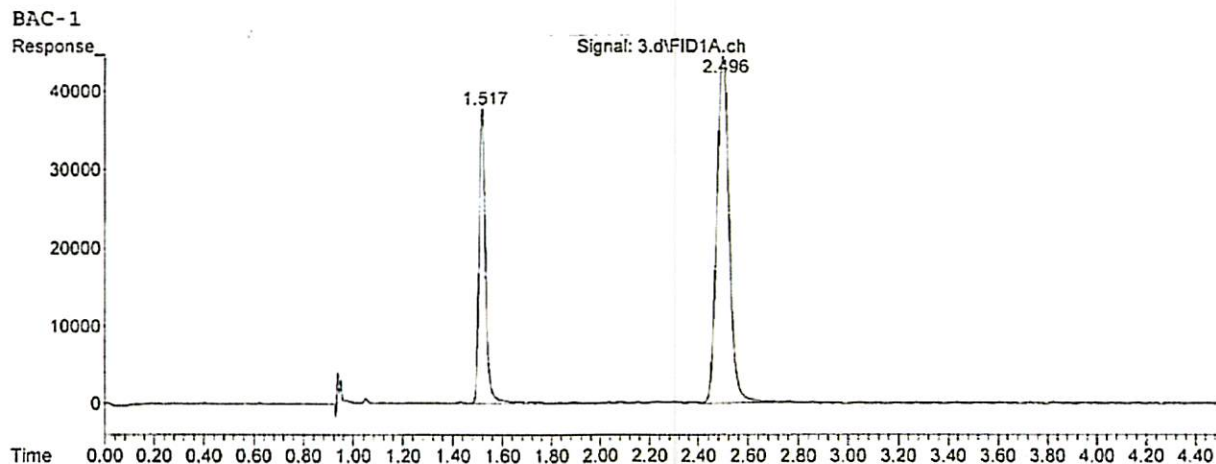


Name	Ret Time	Target Response (Area)
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ACETONE #2	0.000	0
i-PROPANOL #2	0.000	0
n-PROPANOL #2	2.914	1554710
ETHANOL #2	1.654	687015

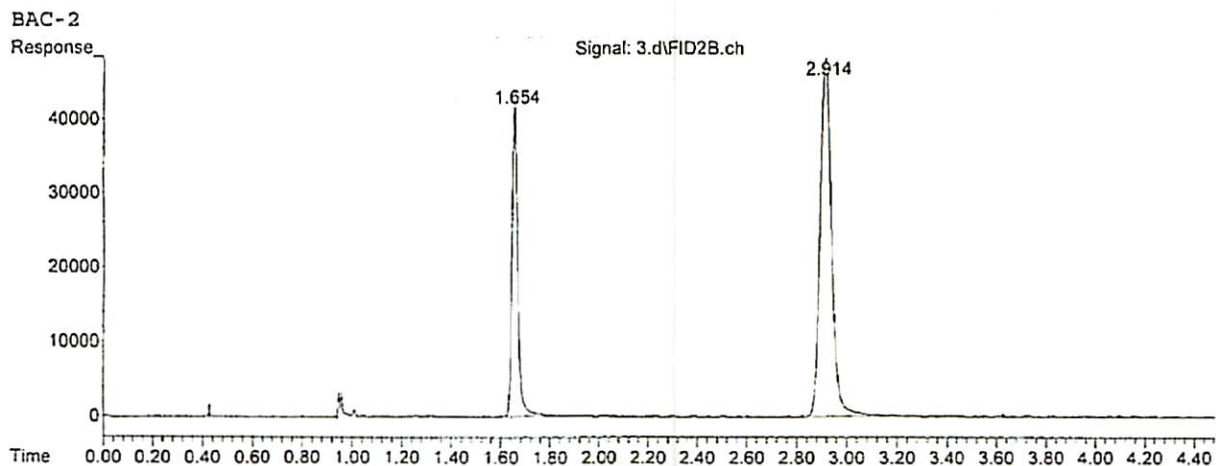
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# Harris County Institute of Forensic Sciences

Sample Name 0.100 STD Instrument Name GC-2  
 Misc Info RANGE (0.095-0.105)  
 Tray/Vial 1/3 Operator KP  
 Date Acquired 12/22/2014 8:12 Acq. Method File ALCOHOL.M  
 Data File Name 3.D Last Calibrated Mon Dec 22 08:40:52 2014  
 Data Path C:\msdchem\1\data\DECEMBER 2014\122214\_ETOH CALIBRATION CURVE\3.D



Name	Ret Time	Amount (g/dL)	Target Response (Area)
METHANOL	0.000	0.000	0
ACETONE	0.000	0.000	0
i-PROPANOL	0.000	0.000	0
n-PROPANOL	2.496	0.020	1546187
ETHANOL	1.517	0.098	690646



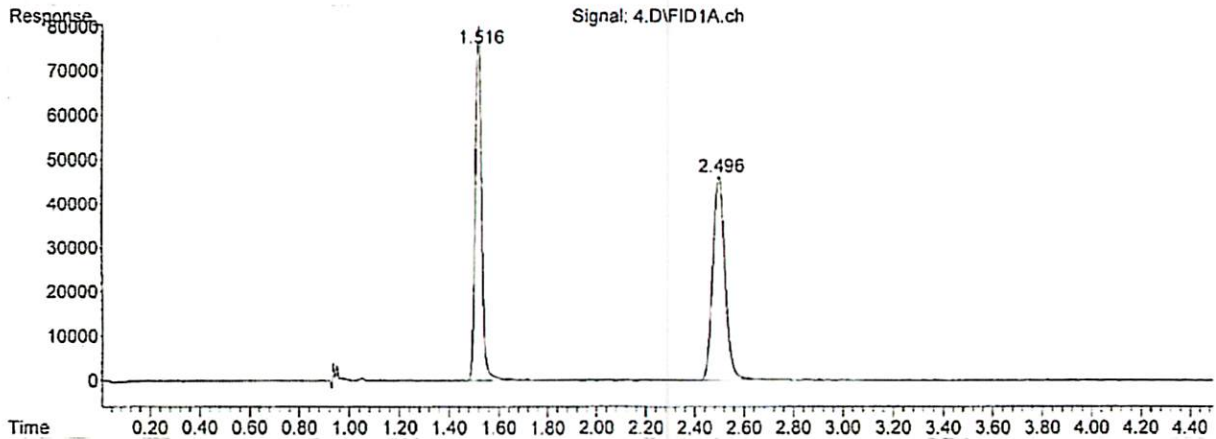
Name	Ret Time	Target Response (Area)
METHANOL #2	0.000	0
ACETONE #2	0.000	0
i-PROPANOL #2	0.000	0
n-PROPANOL #2	2.914	1554710
ETHANOL #2	1.654	687015

74

# Harris County Institute of Forensic Sciences

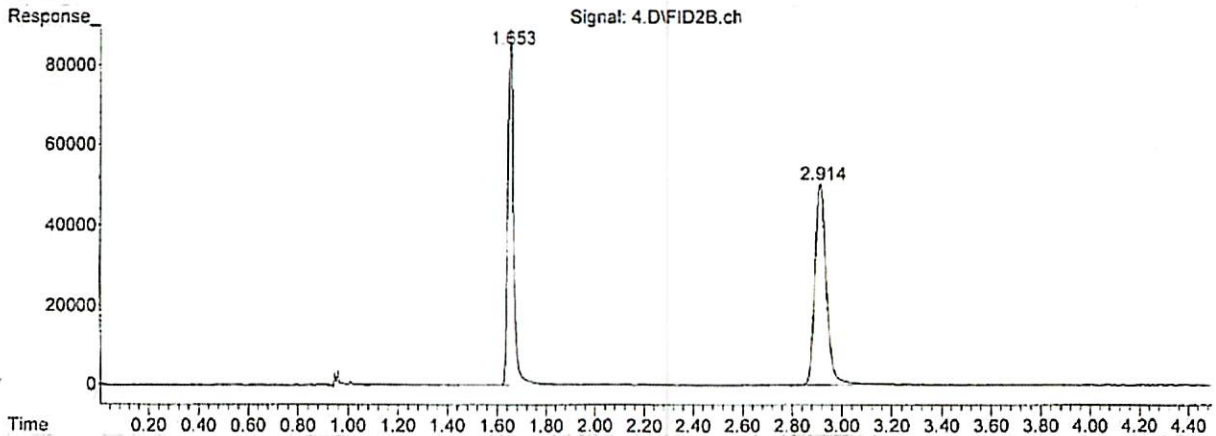
Sample Name 0.200 STD Instrument Name GC-2  
 Misc Info RANGE (0.190-0.210)  
 Tray/Vial 1/4 Operator KP  
 Date Acquired 12/22/2014 8:19 Acq. Method File ALCOHOL.M  
 Data File Name 4.D Last Calibrated Mon Dec 22 08:24:57 2014  
 Data Path C:\MSDCHEM\1\DATA\DECEMBER 2014\122214\_ETOH CALIBRATION CURVE\4.D

## BAC-1



Name	Ret Time	Amount (g/dL)	Target Response (Area)
METHANOL	0.000	0.000	0
ACETONE	0.000	0.000	0
i-PROPANOL	0.000	0.000	0
n-PROPANOL	2.495	0.020	1588413
ETHANOL	1.516	0.216	1420002

## BAC-2



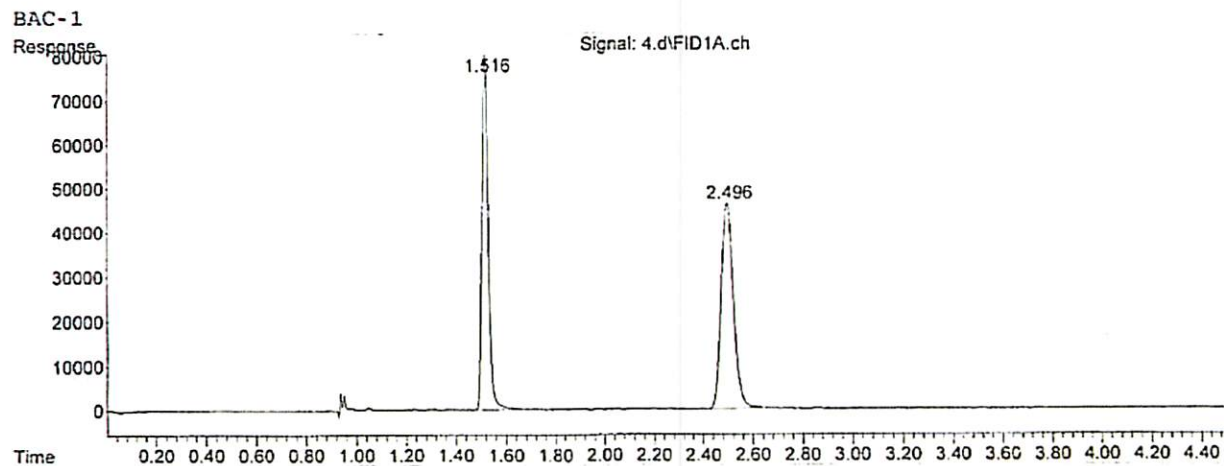
Name	Ret Time	Target Response (Area)
METHANOL #2	0.000	0
ACETONE #2	0.000	0
i-PROPANOL #2	0.000	0
n-PROPANOL #2	2.914	1622613
ETHANOL #2	1.653	1432599



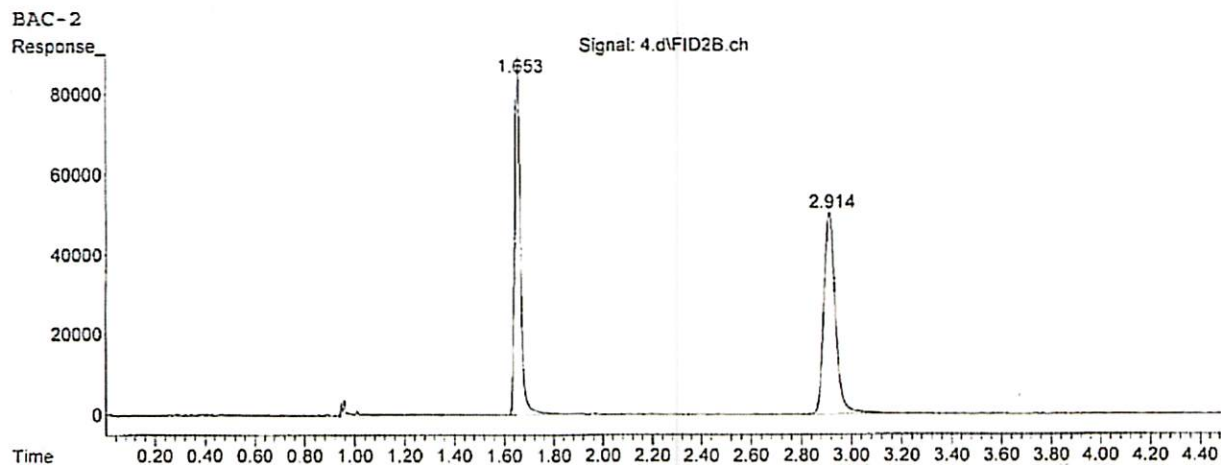
74p

## Harris County Institute of Forensic Sciences

Sample Name 0.200 STD Instrument Name GC-2  
 Misc Info RANGE (0.190-0.210)  
 Tray/Vial 1/4 Operator KP  
 Date Acquired 12/22/2014 8:19 Acq. Method File ALCOHOL.M  
 Data File Name 4.D Last Calibrated Mon Dec 22 08:40:52 2014  
 Data Path C:\msdchem\1\data\DECEMBER 2014\122214\_ETOH CALIBRATION CURVE\4.D



Name	Ret Time	Amount (g/dL)	Target Response (Area)
METHANOL	0.000	0.000	0
ACETONE	0.000	0.000	0
i-PROPANOL	0.000	0.000	0
n-PROPANOL	2.495	0.020	1588413
ETHANOL	1.516	0.197	1420002

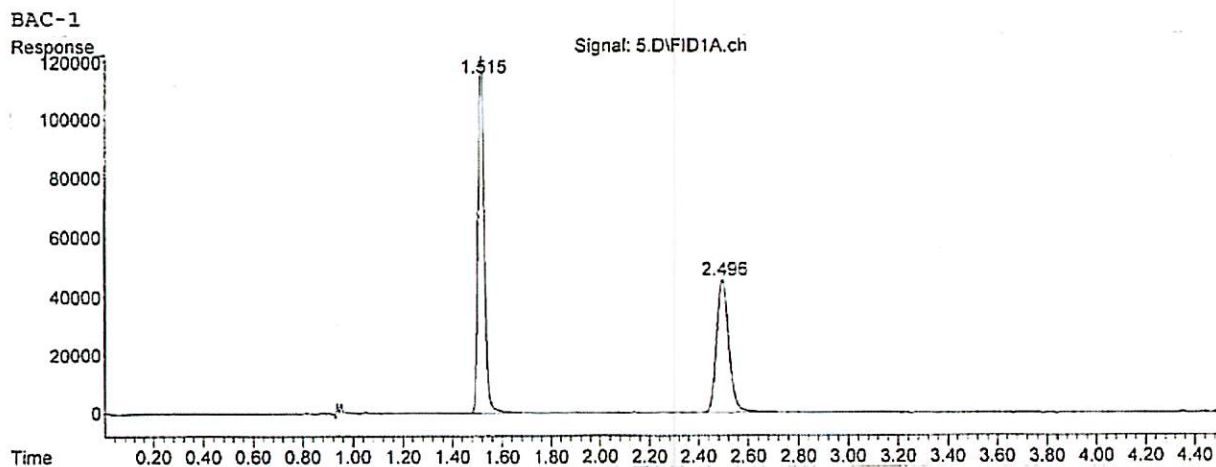


Name	Ret Time	Target Response (Area)
METHANOL #2	0.000	0
ACETONE #2	0.000	0
i-PROPANOL #2	0.000	0
n-PROPANOL #2	2.914	1622613
ETHANOL #2	1.653	1432599

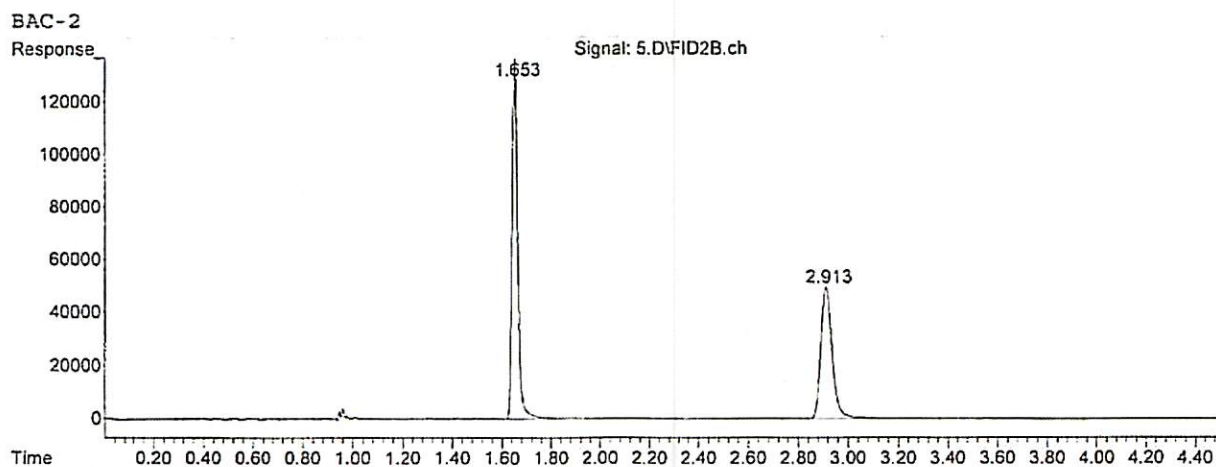
KP

Harris County Institute of Forensic Sciences

Sample Name 0.300 STD Instrument Name GC-2  
 Misc Info RANGE (0.285-0.315)  
 Tray/Vial 1/5 Operator KP  
 Date Acquired 12/22/2014 8:27 Acq. Method File ALCOHOL.M  
 Data File Name 5.D Last Calibrated Mon Dec 22 08:32:54 2014  
 Data Path C:\MSDCHEM\1\DATA\DECEMBER 2014\122214\_ETOH CALIBRATION CURVE\5.D



Name	Ret Time	Amount (g/dL)	Target Response (Area)
METHANOL	0.000	0.000	0
ACETONE	0.000	0.000	0
i-PROPANOL	0.000	0.000	0
n-PROPANOL	2.496	0.020	1582662
ETHANOL	1.515	0.323	2129981



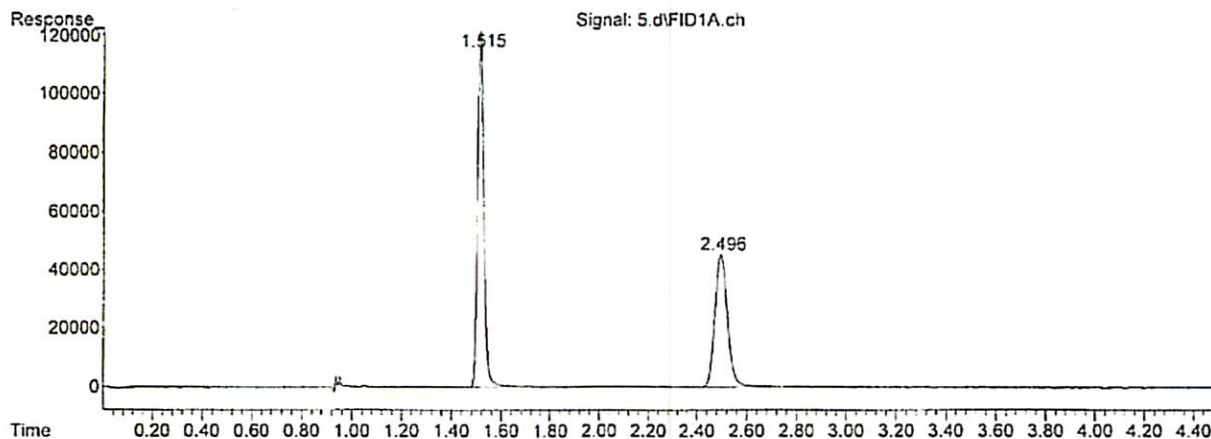
Name	Ret Time	Target Response (Area)
METHANOL #2	0.000	0
ACETONE #2	0.000	0
i-PROPANOL #2	0.000	0
n-PROPANOL #2	2.913	1591655
ETHANOL #2	1.653	2170272

Kp

# Harris County Institute of Forensic Sciences

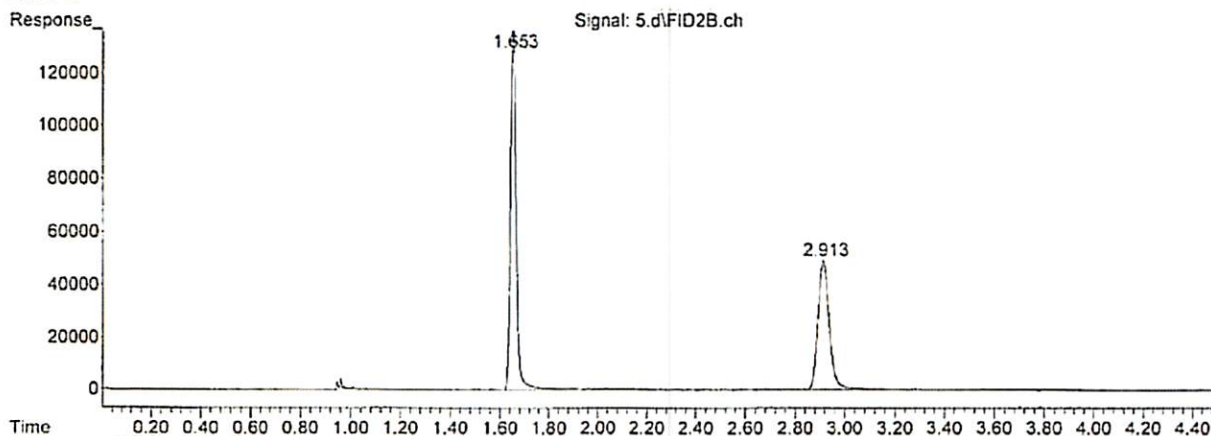
Sample Name 0.300 STD Instrument Name GC-2  
 Misc Info RANGE (0.285-0.315)  
 Tray/Vial 1/5 Operator KP  
 Date Acquired 12/22/2014 8:27 Acq. Method File ALCOHOL.M  
 Data File Name 5.D Last Calibrated Mon Dec 22 08:40:52 2014  
 Data Path C:\msdchem\1\data\DECEMBER 2014\122214\_ETOH CALIBRATION CURVE\5.D

BAC-1



Name	Ret Time	Amount (g/dL)	Target Response (Area)
METHANOL	0.000	0.000	0
ACETONE	0.000	0.000	0
i-PROPANOL	0.000	0.000	0
n-PROPANOL	2.496	0.020	1582662
ETHANOL	1.515	0.296	2129981

BAC-2

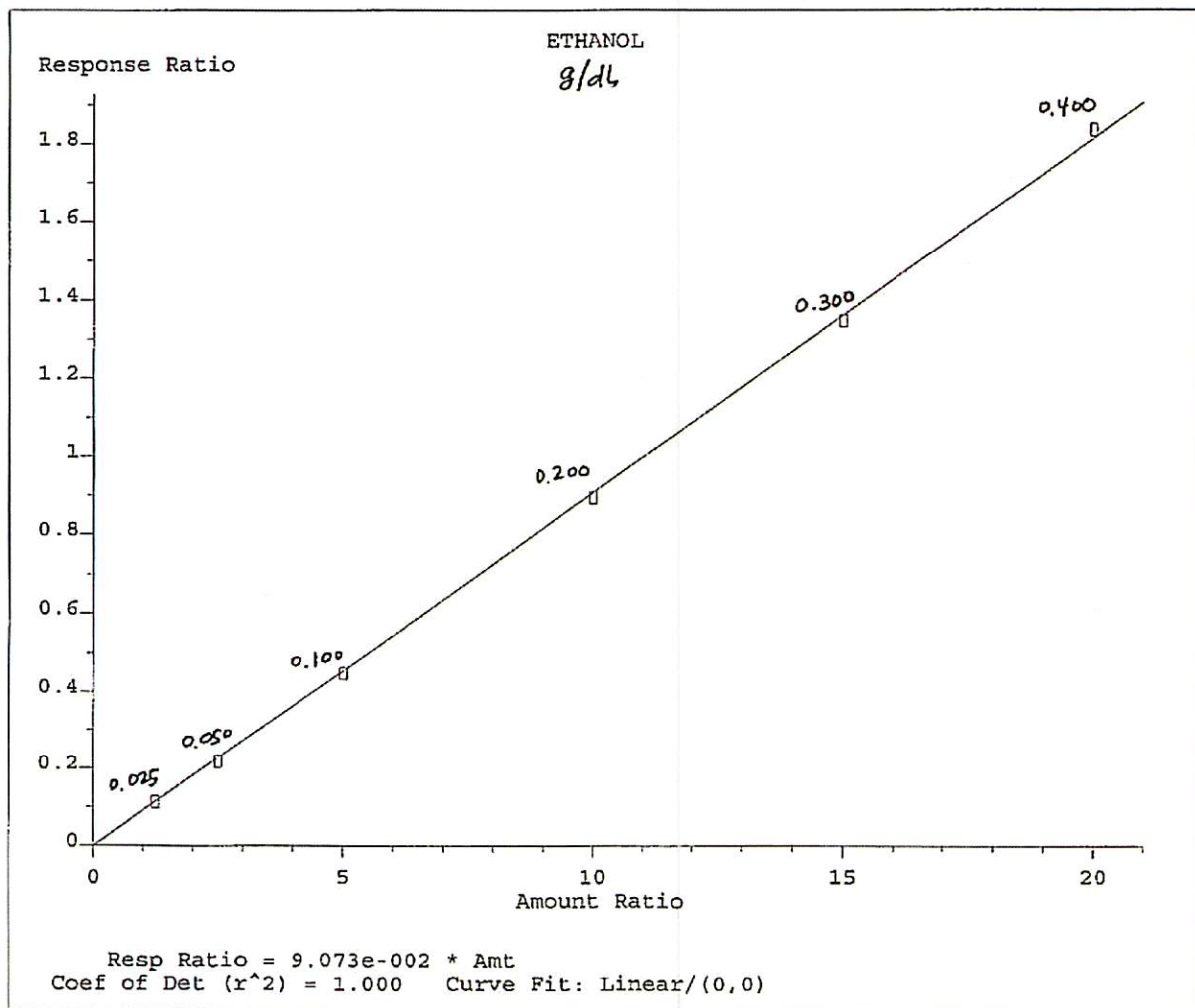


Name	Ret Time	Target Response (Area)
METHANOL #2	0.000	0
ACETONE #2	0.000	0
i-PROPANOL #2	0.000	0
n-PROPANOL #2	2.913	1591655
ETHANOL #2	1.653	2170272

KP

Harris County Institute of Forensic Sciences  
Forensic Alcohol Section  
Calibration Report

Instrument: GC-2 Analyst : KP  
Data Path : C:\msdchem\1\data\DECEMBER 2014\122214\_ETOH CALIBRATION CURVE  
Seq Path : C:\msdchem\1\sequence\ETOH CALIBRATION CURVE\_122214\_KP.S  
Acquisition Method: C:\MSDCHEM\1\METHODS\ALCOHOL.M  
Calibration Date : 12/22/2014 08:40:52 AM



Standard Name	Nominal g/dL	Ethanol Area	n-Propanol Area	Calculated g/dL	Flag
0.025 STD	0.025	181911	1630036	0.025	
0.050 STD	0.050	351547	1621381	0.048	
0.100 STD	0.100	690646	1546187	0.098	
0.200 STD	0.200	1420002	1588413	0.197	
0.300 STD	0.300	2129981	1582662	0.297	
0.400 STD	0.400	3031028	1651215	0.405	

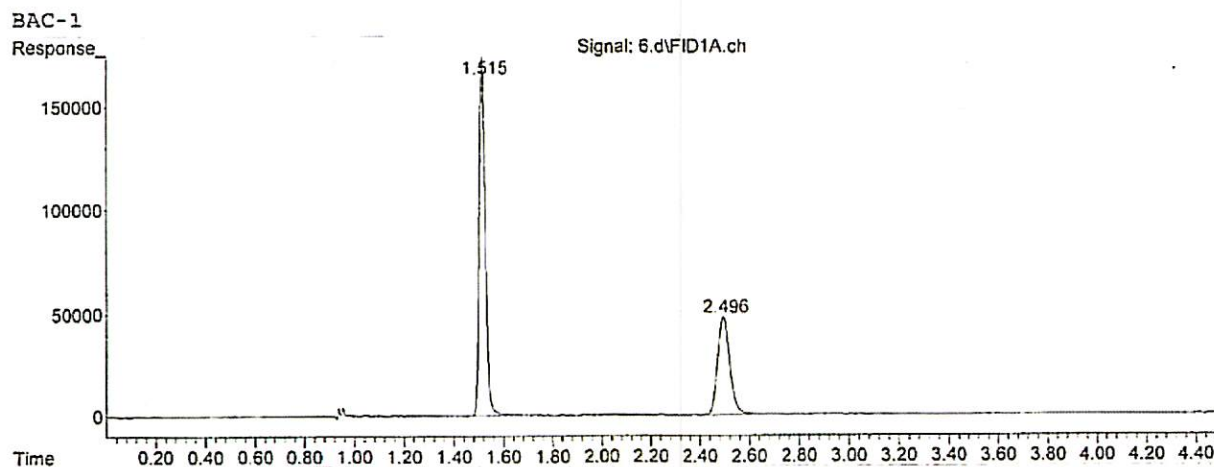
Correlation Coefficient 0.99 or Better  
Calibration may be used.

Printed on: Mon Dec 22 08:49:42 2014

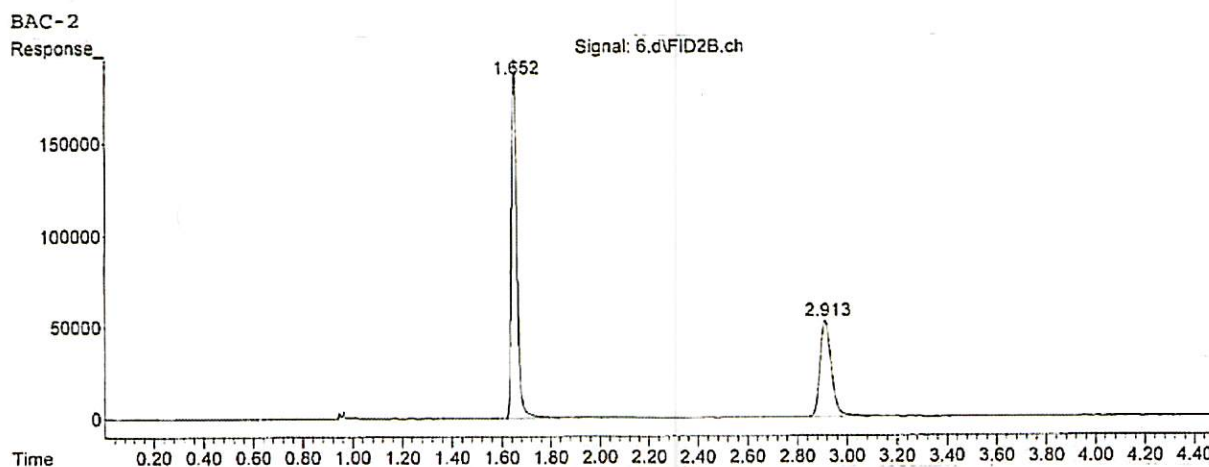
KP

Harris County Institute of Forensic Sciences

Sample Name 0.400 STD Instrument Name GC-2  
 Misc Info RANGE (0.380-0.420)  
 Tray/Vial 1/6 Operator KP  
 Date Acquired 12/22/2014 8:35 Acq. Method File ALCOHOL.M  
 Data File Name 6.D Last Calibrated Mon Dec 22 08:40:52 2014  
 Data Path C:\MSDCHEM\1\DATA\DECEMBER 2014\122214\_ETOH CALIBRATION CURVE\6.D



Name	Ret Time	Amount (g/dL)	Target Response (Area)
METHANOL	0.000	0.000	0
ACETONE	0.000	0.000	0
i-PROPANOL	0.000	0.000	0
n-PROPANOL	2.496	0.020	1651215
ETHANOL	1.515	0.404	3031028



Name	Ret Time	Target Response (Area)
METHANOL #2	0.000	0
ACETONE #2	0.000	0
i-PROPANOL #2	0.000	0
n-PROPANOL #2	2.913	1685842
ETHANOL #2	1.652	3074748



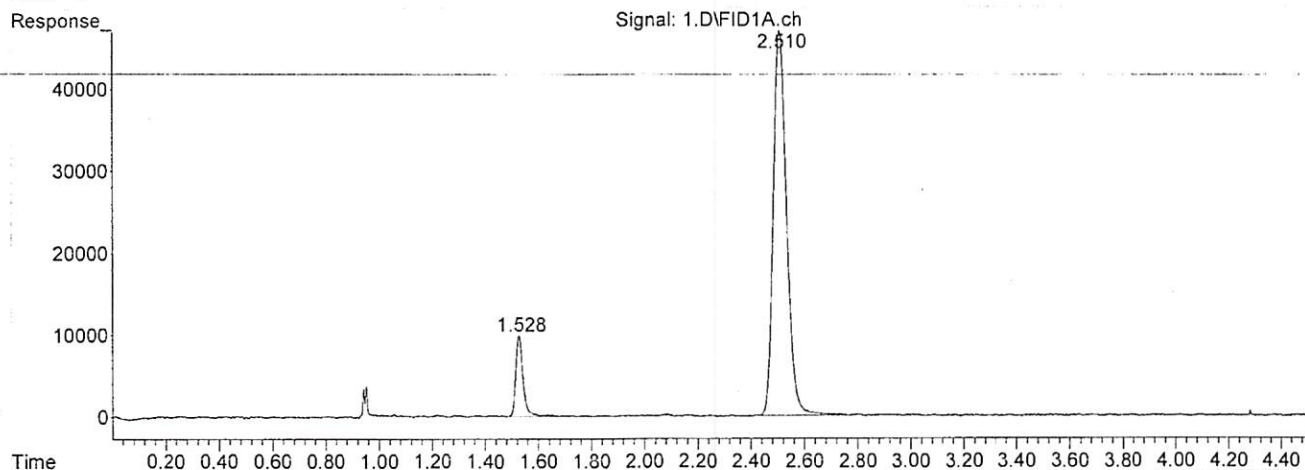
# RAW DATA

24

## Harris County Institute of Forensic Sciences

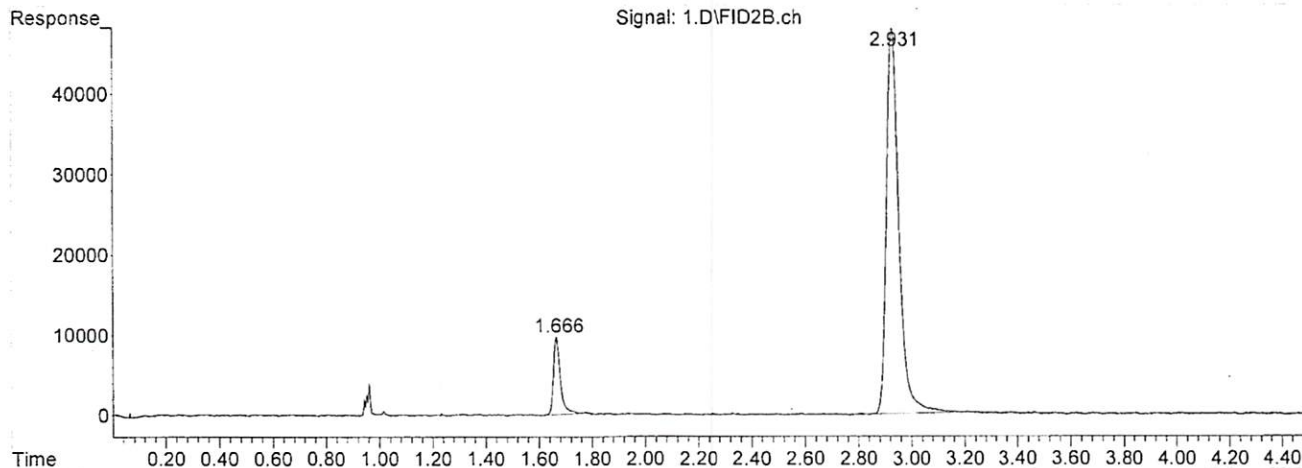
Sample Name	0.025 STD	Instrument Name	GC-2
Misc Info	RANGE (0.022-0.027)		
Tray/Vial	1/1	Operator	AAS
Date Acquired	6/11/2015 10:40	Acq. Method File	ALCOHOL.M
Data File Name	1.D	Last Calibrated	Thu Jun 11 10:45:41 2015
Data Path	C:\MSDCHEM\1\DATA\JUNE 2015\061115_ETOH CALIBRATION CURVE\1.D		

BAC-1



Name	Ret Time	Amount (g/dL)	Target Response (Area)
METHANOL	0.000	0.000	0
ACETONE	0.000	0.000	0
i-PROPANOL	0.000	0.000	0
n-PROPANOL	2.510	0.020	1628268
ETHANOL	1.528	0.025	193509

BAC-2



Name	Ret Time	Target Response (Area)
METHANOL #2	0.000	0
ACETONE #2	0.000	0
i-PROPANOL #2	0.000	0
n-PROPANOL #2	2.931	1586433
ETHANOL #2	1.666	171569

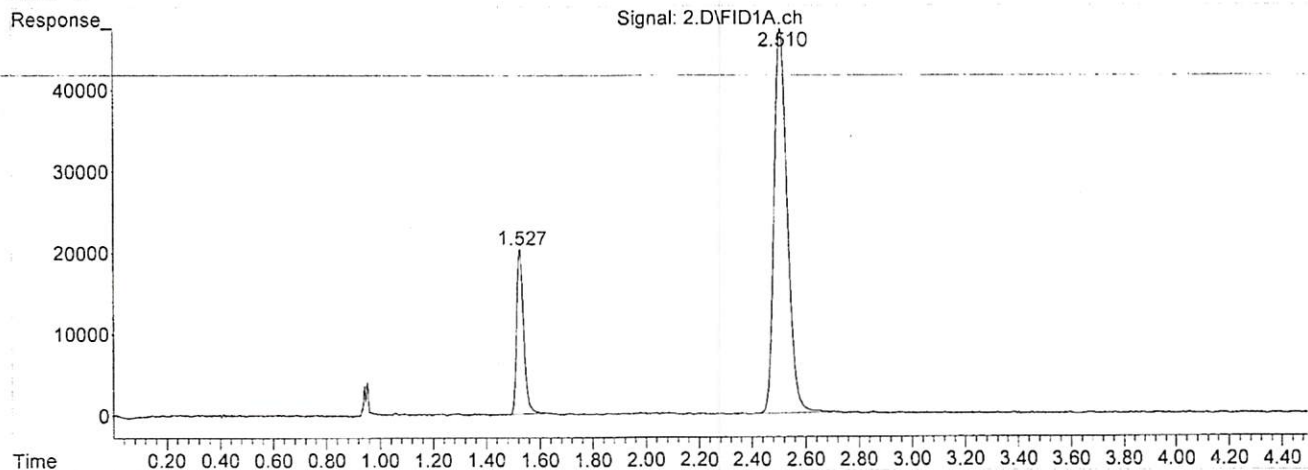
RAW DATA

A-13

## Harris County Institute of Forensic Sciences

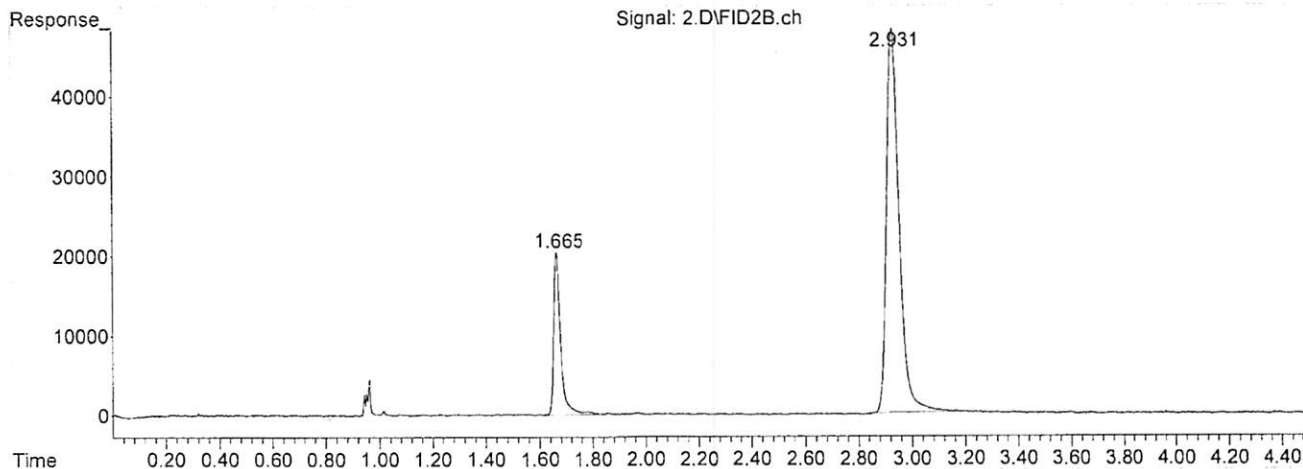
Sample Name 0.050 STD Instrument Name GC-2  
Misc Info RANGE (0.047-0.052)  
Tray/Vial 1/2 Operator AAS  
Date Acquired 6/11/2015 10:48 Acq. Method File ALCOHOL.M  
Data File Name 2.D Last Calibrated Thu Jun 11 10:53:56 2015  
Data Path C:\MSDCHEM\1\DATA\JUNE 2015\061115\_ETOH CALIBRATION CURVE\2.D

BAC-1



Name	Ret Time	Amount (g/dL)	Target Response (Area)
METHANOL	0.000	0.000	0
ACETONE	0.000	0.000	0
i-PROPANOL	0.000	0.000	0
n-PROPANOL	2.510	0.020	1628186
ETHANOL	1.527	0.048	364390

BAC-2



Name	Ret Time	Target Response (Area)
METHANOL #2	0.000	0
ACETONE #2	0.000	0
i-PROPANOL #2	0.000	0
n-PROPANOL #2	2.931	1583783
ETHANOL #2	1.665	369377

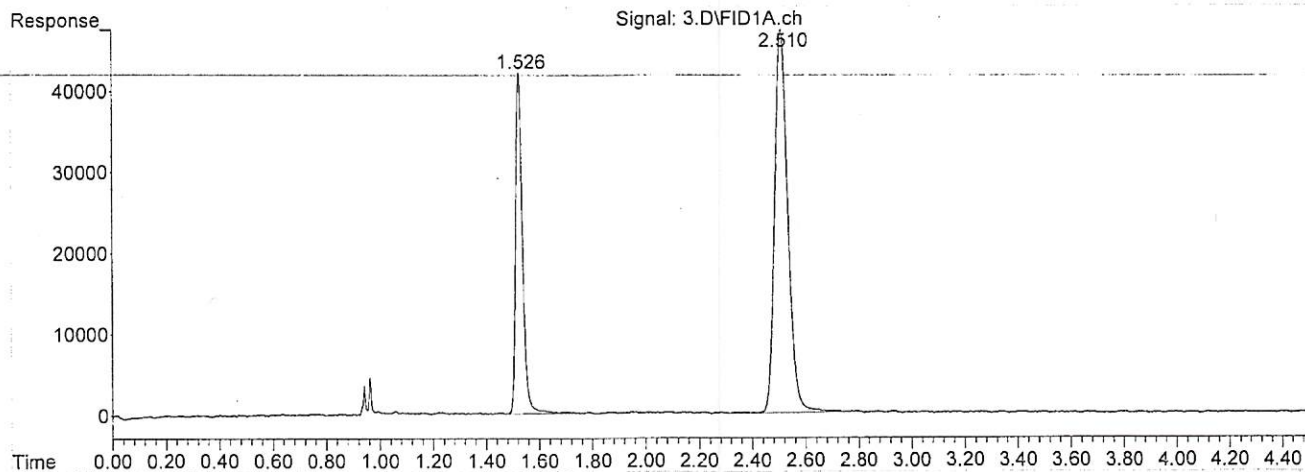
# RAW DATA

AK

## Harris County Institute of Forensic Sciences

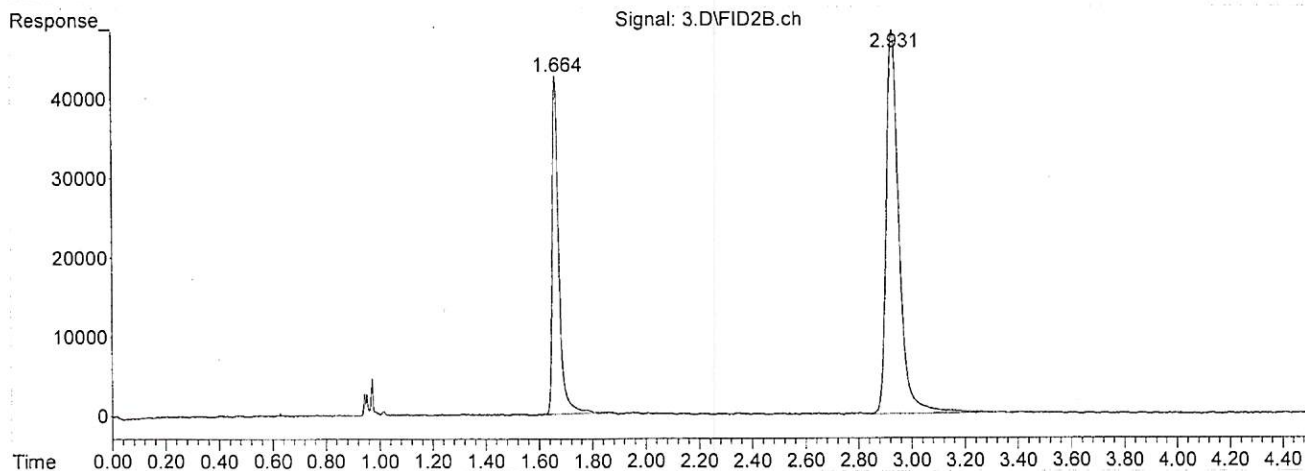
Sample Name	0.100 STD	Instrument Name	GC-2
Misc Info	RANGE (0.095-0.105)		
Tray/Vial	1/3	Operator	AAS
Date Acquired	6/11/2015 10:57	Acq. Method File	ALCOHOL.M
Data File Name	3.D	Last Calibrated	Thu Jun 11 11:02:13 2015
Data Path	C:\MSDCHEM\1\DATA\JUNE 2015\061115_ETOH CALIBRATION CURVE\3.D		

BAC-1



Name	Ret Time	Amount (g/dL)	Target Response (Area)
METHANOL	0.000	0.000	0
ACETONE	0.000	0.000	0
i-PROPANOL	0.000	0.000	0
n-PROPANOL	2.510	0.020	1638324
ETHANOL	1.526	0.100	763347

BAC-2



Name	Ret Time	Target Response (Area)
METHANOL #2	0.000	0
ACETONE #2	0.000	0
i-PROPANOL #2	0.000	0
n-PROPANOL #2	2.931	1624568
ETHANOL #2	1.664	733242

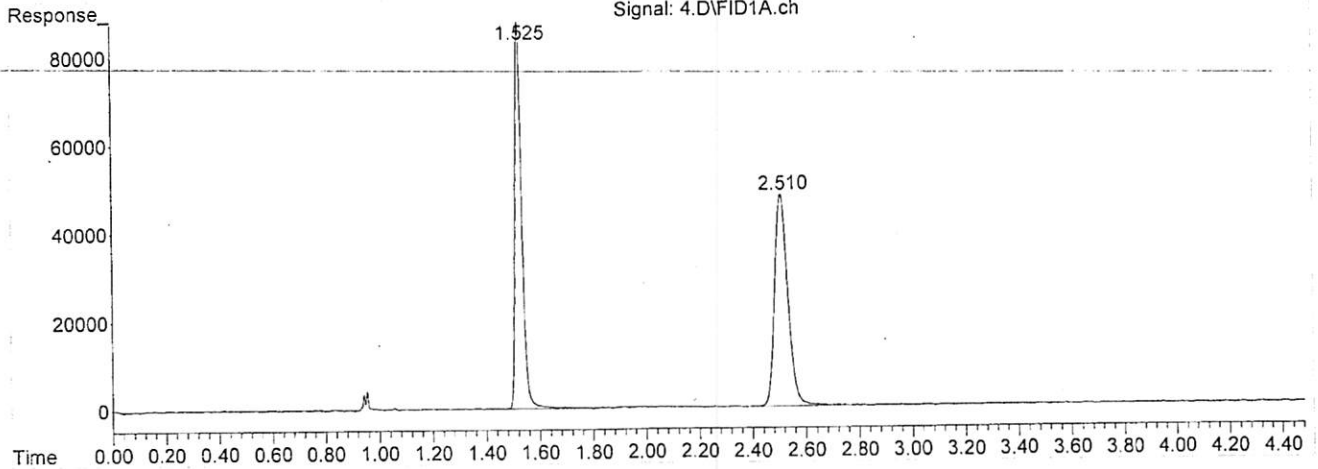
# RAW DATA

AK

## Harris County Institute of Forensic Sciences

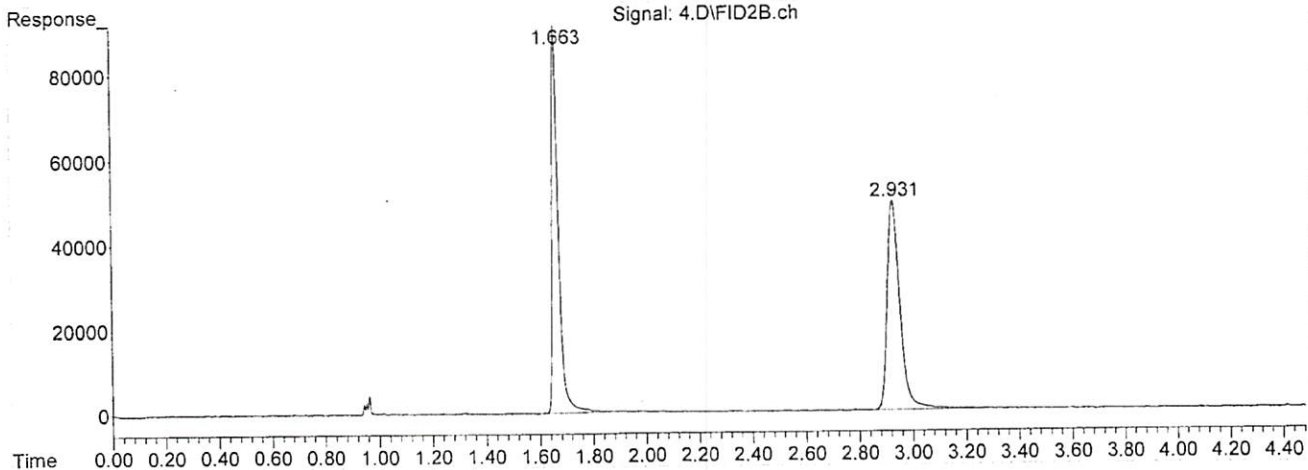
Sample Name	0.200 STD	Instrument Name	GC-2
Misc Info	RANGE (0.190-0.210)	Operator	AAS
Tray/Vial	1/4	Acq. Method File	ALCOHOL.M
Date Acquired	6/11/2015 11:05	Last Calibrated	Thu Jun 11 11:10:28 2015
Data File Name	4.D		
Data Path	C:\MSDCHEM\1\DATA\JUNE 2015\061115_ETOH CALIBRATION CURVE\4.D		

BAC-1



Name	Ret Time	Amount (g/dL)	Target Response (Area)
METHANOL	0.000	0.000	0
ACETONE	0.000	0.000	0
i-PROPANOL	0.000	0.000	0
n-PROPANOL	2.510	0.020	1675596
ETHANOL	1.525	0.202	1570863

BAC-2



Name	Ret Time	Target Response (Area)
METHANOL #2	0.000	0
ACETONE #2	0.000	0
i-PROPANOL #2	0.000	0
n-PROPANOL #2	2.931	1647732
ETHANOL #2	1.663	1537736

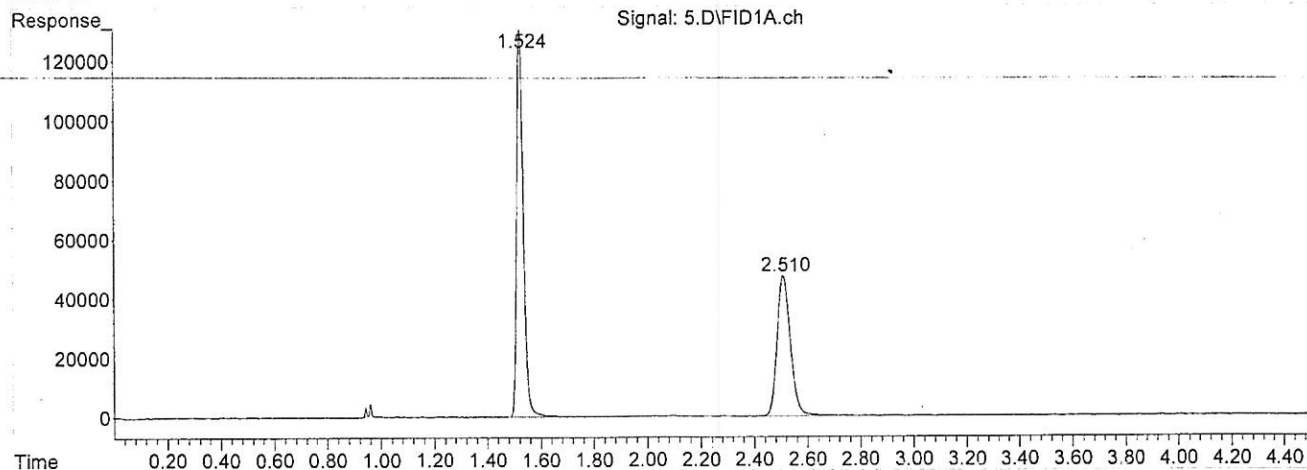
LAW DATA

AK

Harris County Institute of Forensic Sciences

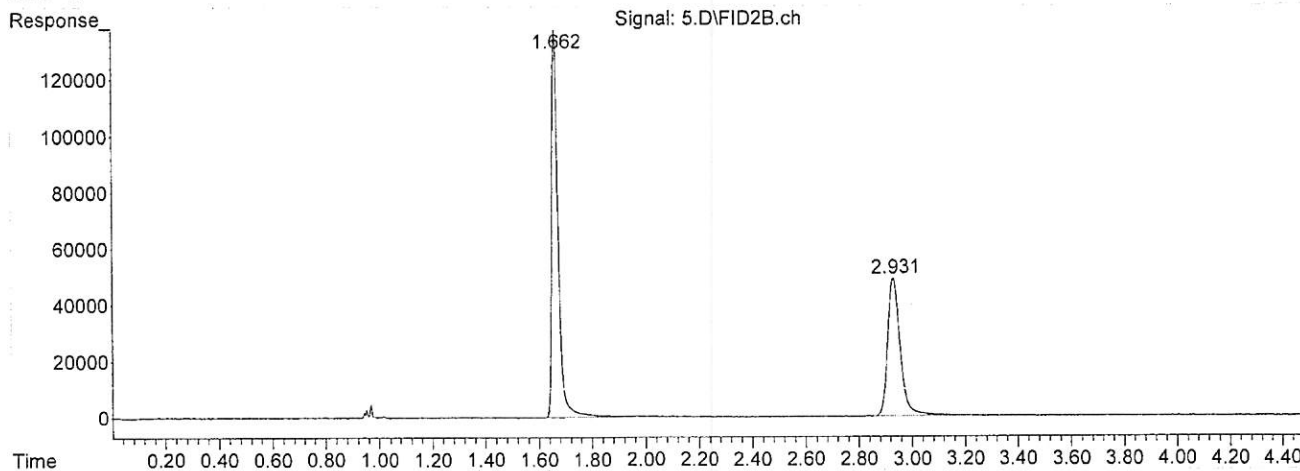
Sample Name 0.300 STD Instrument Name GC-2  
 Misc Info RANGE (0.285-0.315)  
 Tray/Vial 1/5 Operator AAS  
 Date Acquired 6/11/2015 11:13 Acq. Method File ALCOHOL.M  
 Data File Name 5.D Last Calibrated Thu Jun 11 11:18:39 2015  
 Data Path C:\MSDCHEM\1\DATA\JUNE 2015\061115\_ETOH CALIBRATION CURVE\5.D

BAC-1



Name	Ret Time	Amount (g/dL)	Target Response (Area)
METHANOL	0.000	0.000	0
ACETONE	0.000	0.000	0
i-PROPANOL	0.000	0.000	0
n-PROPANOL	2.510	0.020	1648271
ETHANOL	1.524	0.300	2295921

BAC-2



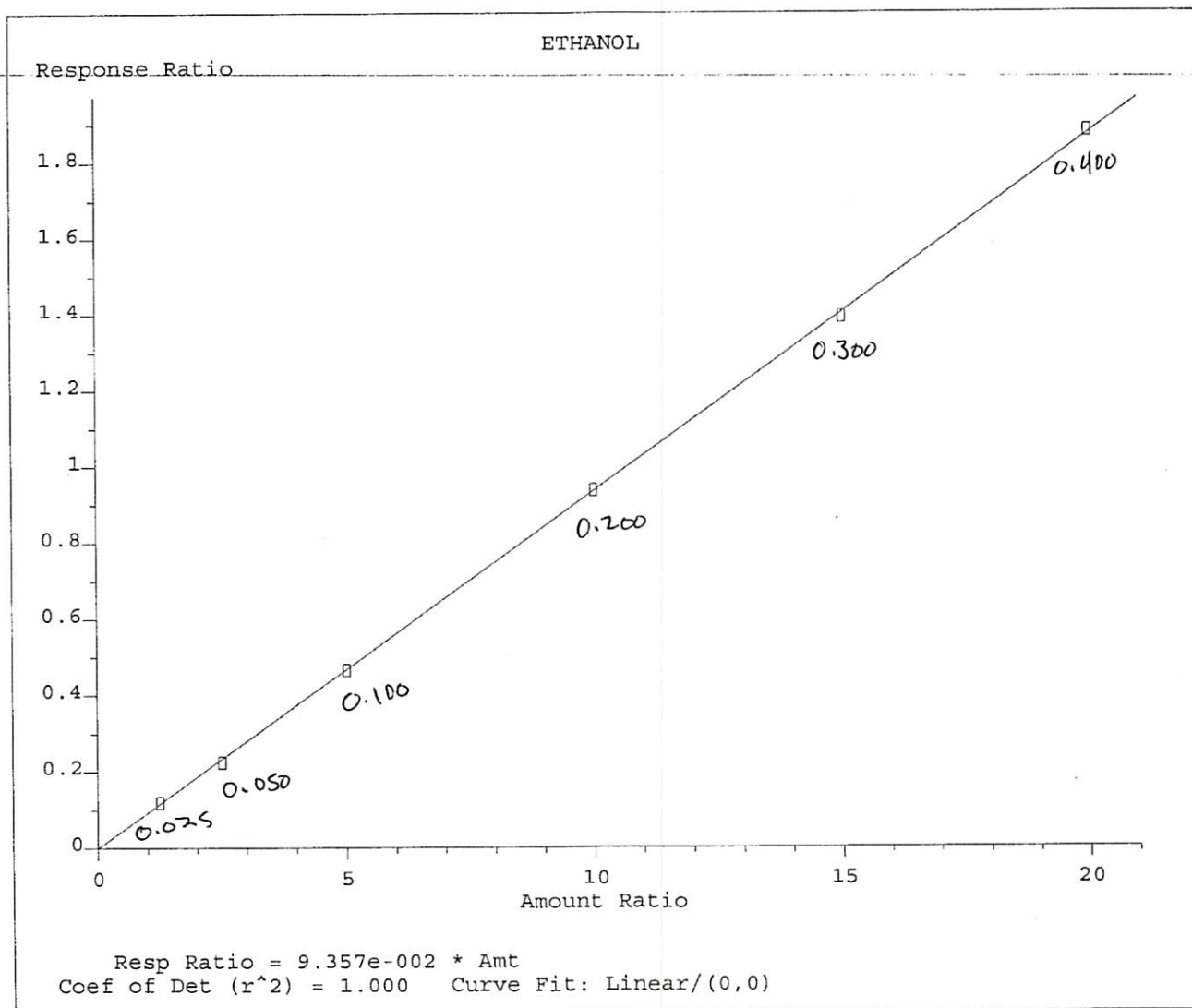
Name	Ret Time	Target Response (Area)
METHANOL #2	0.000	0
ACETONE #2	0.000	0
i-PROPANOL #2	0.000	0
n-PROPANOL #2	2.931	1605096
ETHANOL #2	1.662	2284584



Harris County Institute of Forensic Sciences  
Forensic Alcohol Section  
Calibration Report

*AK*

Instrument: GC-2 Analyst : AAS  
Data Path : C:\msdchem\1\data\JUNE 2015\061115\_ETOH CALIBRATION CURVE  
Seq Path : C:\msdchem\1\sequence\ETOH CALIBRATION CURVE\_061115\_AAS.S  
Acquisition Method: C:\msdchem\1\methods\ALCOHOL.M  
Calibration Date : 06/11/2015 11:26:53 AM



Standard Name	Nominal g/dL	Ethanol Area	n-Propanol Area	Calculated g/dL	Flag
0.025 STD	0.025	193509	1628268	0.025	
0.050 STD	0.050	364390	1628186	0.048	
0.100 STD	0.100	763347	1638324	0.100	
0.200 STD	0.200	1570863	1675596	0.200	
0.300 STD	0.300	2295921	1648271	0.298	
0.400 STD	0.400	3066668	1631054	0.402	

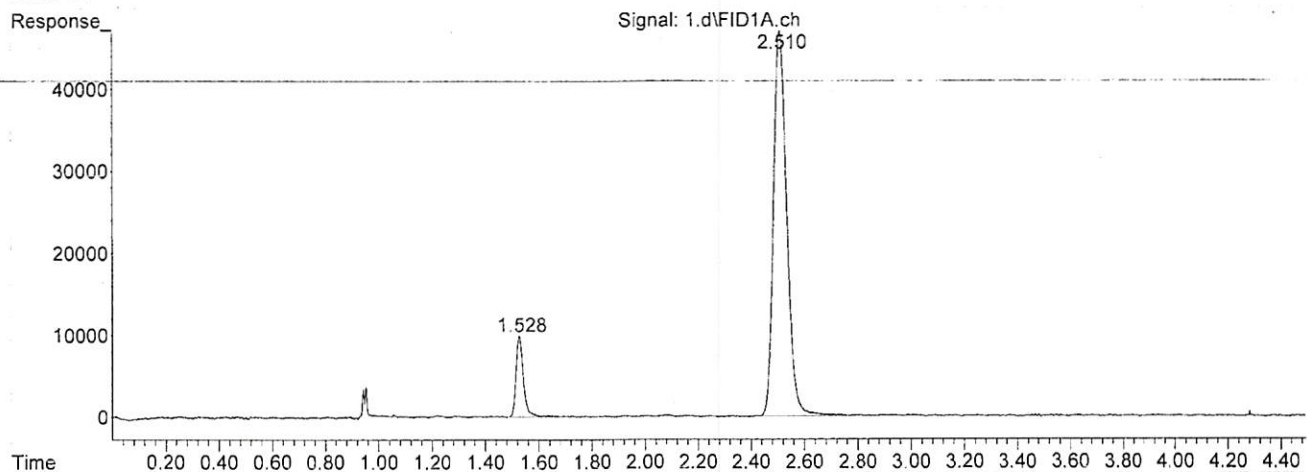
Correlation Coefficient 0.99 or Better  
Calibration may be used.

AZK

Harris County Institute of Forensic Sciences

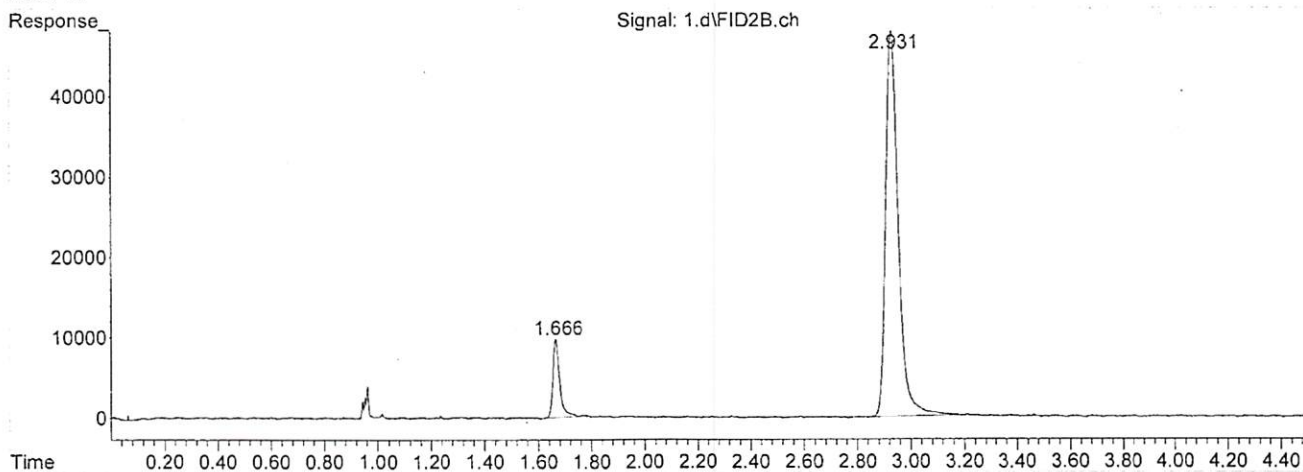
Sample Name	0.025 STD	Instrument Name	GC-2
Misc Info	RANGE (0.022-0.027)	Operator	AAS
Tray/Vial	1/1	Acq. Method File	ALCOHOL.M
Date Acquired	6/11/2015 10:40	Last Calibrated	Thu Jun 11 11:26:53 2015
Data File Name	1.D	Data Path	C:\msdchem\1\data\JUNE 2015\061115_ETOH CALIBRATION CURVE\1.D

BAC-1



Name	Ret Time	Amount (g/dL)	Target Response (Area)
METHANOL	0.000	0.000	0
ACETONE	0.000	0.000	0
i-PROPANOL	0.000	0.000	0
n-PROPANOL	2.510	0.020	1628268
ETHANOL	1.528	0.025	193509

BAC-2



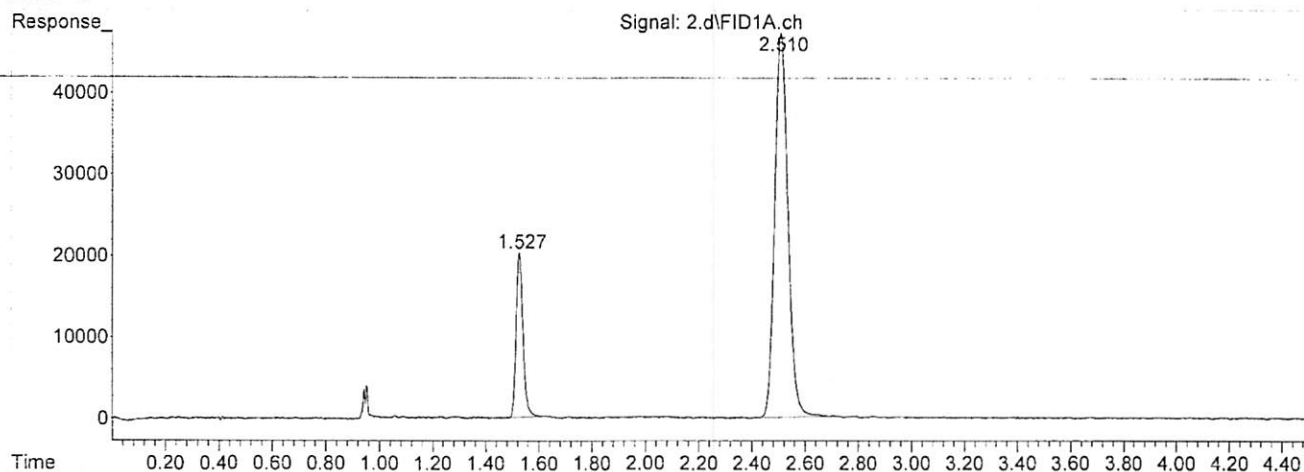
Name	Ret Time	Target Response (Area)
METHANOL #2	0.000	0
ACETONE #2	0.000	0
i-PROPANOL #2	0.000	0
n-PROPANOL #2	2.931	1586433
ETHANOL #2	1.666	171569

Harris County Institute of Forensic Sciences

AK

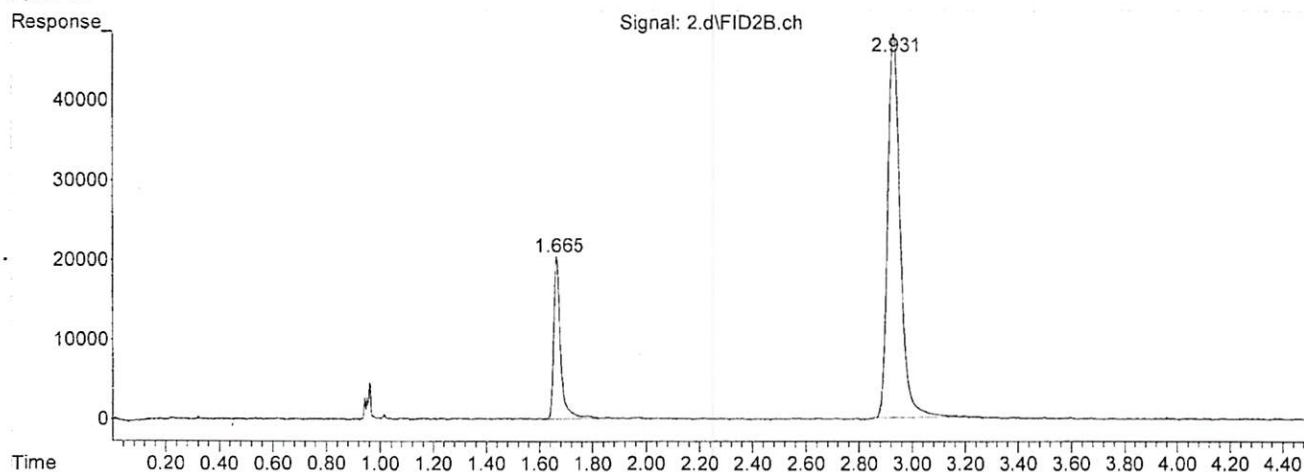
Sample Name 0.050 STD Instrument Name GC-2  
 Misc Info RANGE (0.047-0.052)  
 Tray/Vial 1/2 Operator AAS  
 Date Acquired 6/11/2015 10:48 Acq. Method File ALCOHOL.M  
 Data File Name 2.D Last Calibrated Thu Jun 11 11:26:53 2015  
 Data Path C:\msdchem\1\data\JUNE 2015\061115\_ETOH CALIBRATION CURVE\2.D

BAC-1



Name	Ret Time	Amount (g/dL)	Target Response (Area)
METHANOL	0.000	0.000	0
ACETONE	0.000	0.000	0
i-PROPANOL	0.000	0.000	0
n-PROPANOL	2.510	0.020	1628186
ETHANOL	1.527	0.047	364390

BAC-2



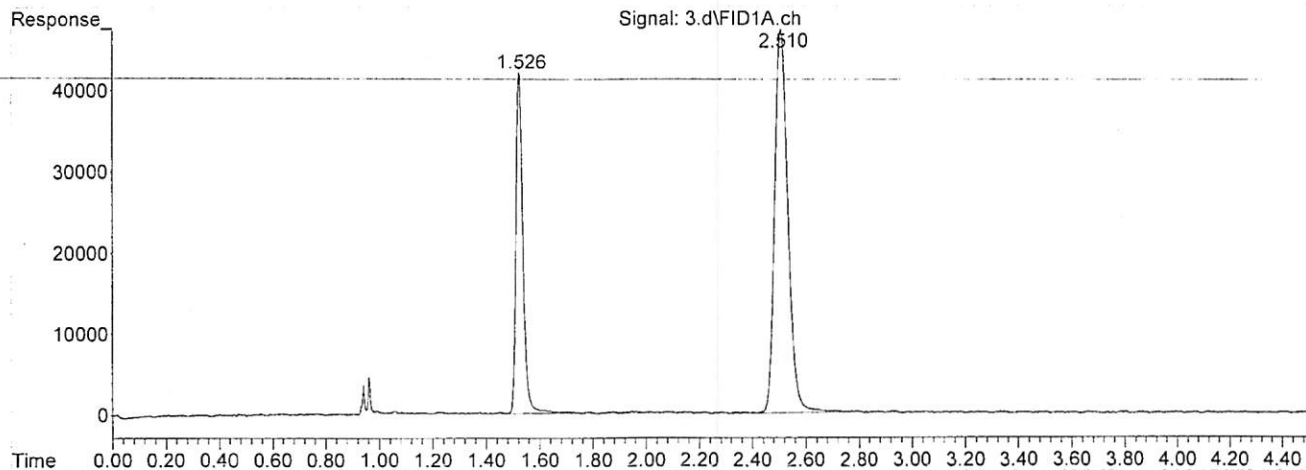
Name	Ret Time	Target Response (Area)
METHANOL #2	0.000	0
ACETONE #2	0.000	0
i-PROPANOL #2	0.000	0
n-PROPANOL #2	2.931	1583783
ETHANOL #2	1.665	369377

Harris County Institute of Forensic Sciences

*AAS*

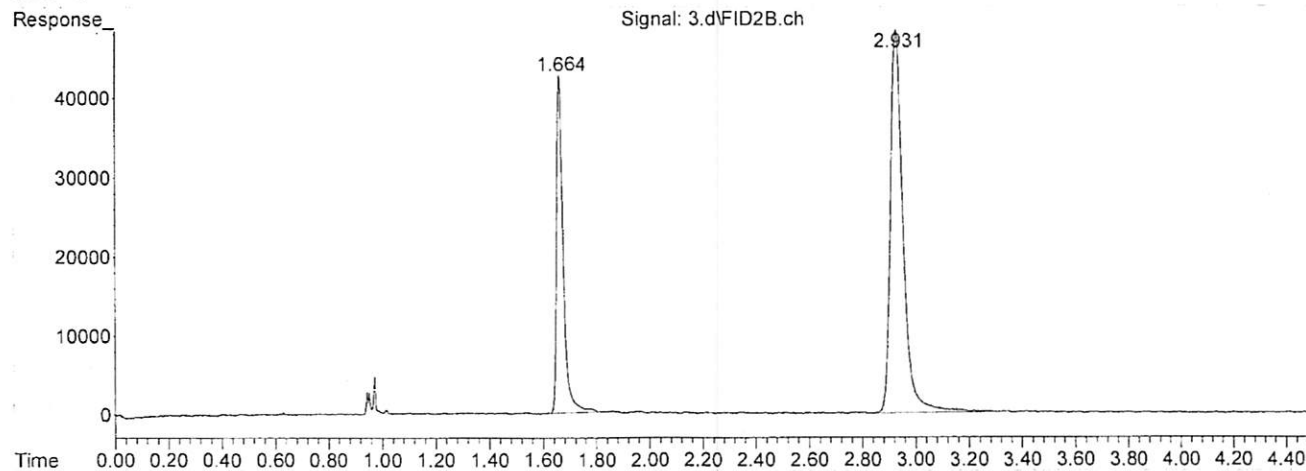
Sample Name 0.100 STD Instrument Name GC-2  
 Misc Info RANGE (0.095-0.105)  
 Tray/Vial 1/3 Operator AAS  
 Date Acquired 6/11/2015 10:57 Acq. Method File ALCOHOL.M  
 Data File Name 3.D Last Calibrated Thu Jun 11 11:26:53 2015  
 Data Path C:\msdchem\1\data\JUNE 2015\061115\_ETOH CALIBRATION CURVE\3.D

BAC-1



Name	Ret Time	Amount (g/dL)	Target Response (Area)
METHANOL	0.000	0.000	0
ACETONE	0.000	0.000	0
i-PROPANOL	0.000	0.000	0
n-PROPANOL	2.510	0.020	1638324
ETHANOL	1.526	0.099	763347

BAC-2



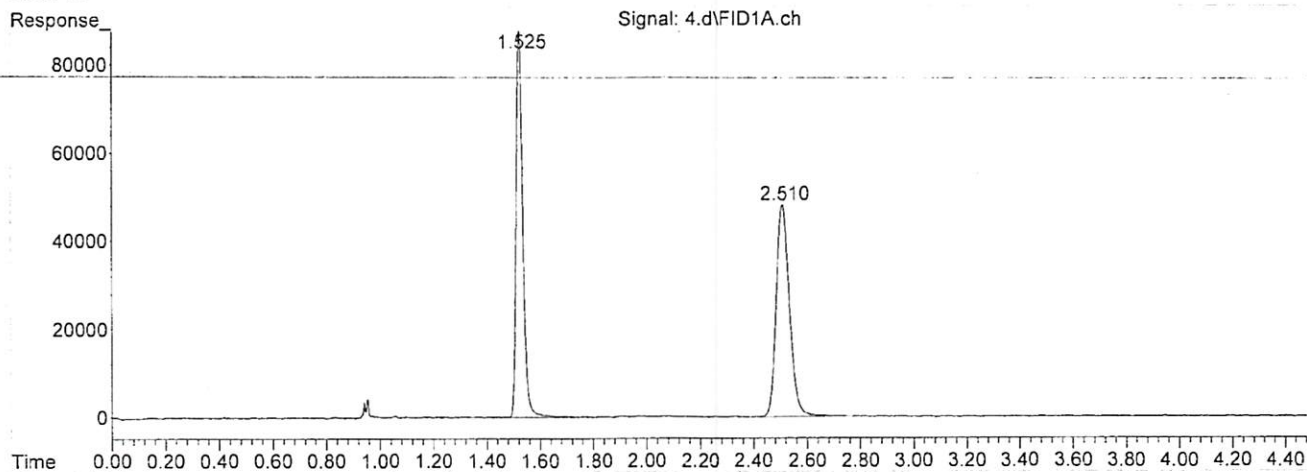
Name	Ret Time	Target Response (Area)
METHANOL #2	0.000	0
ACETONE #2	0.000	0
i-PROPANOL #2	0.000	0
n-PROPANOL #2	2.931	1624568
ETHANOL #2	1.664	733242

Am

Harris County Institute of Forensic Sciences

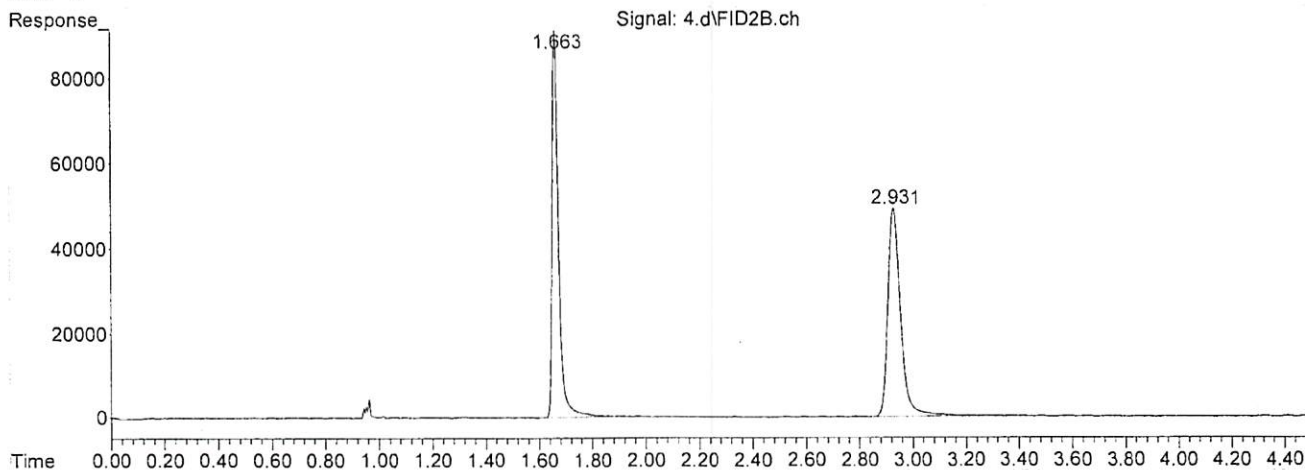
Sample Name	0.200 STD	Instrument Name	GC-2
Misc Info	RANGE (0.190-0.210)		
Tray/Vial	1/4	Operator	AAS
Date Acquired	6/11/2015 11:05	Acq. Method File	ALCOHOL.M
Data File Name	4.D	Last Calibrated	Thu Jun 11 11:26:53 2015
Data Path	C:\msdchem\1\data\JUNE 2015\061115_ETOH CALIBRATION CURVE\4.D		

BAC-1



Name	Ret Time	Amount (g/dL)	Target Response (Area)
METHANOL	0.000	0.000	0
ACETONE	0.000	0.000	0
i-PROPANOL	0.000	0.000	0
n-PROPANOL	2.510	0.020	1675596
ETHANOL	1.525	0.200	1570863

BAC-2



Name	Ret Time	Target Response (Area)
METHANOL #2	0.000	0
ACETONE #2	0.000	0
i-PROPANOL #2	0.000	0
n-PROPANOL #2	2.931	1647732
ETHANOL #2	1.663	1537736



Harris County Institute of Forensic Sciences

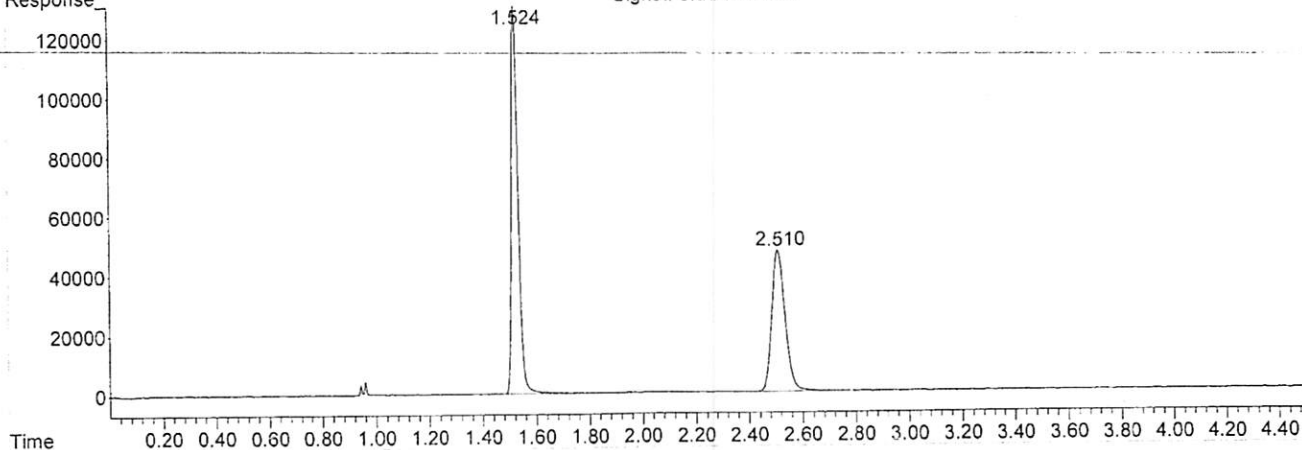
*Acc*

Sample Name	0.300 STD	Instrument Name	GC-2
Misc Info	RANGE (0.285-0.315)	Operator	AAS
Tray/Vial	1/5	Acq. Method File	ALCOHOL.M
Date Acquired	6/11/2015 11:13	Last Calibrated	Thu Jun 11 11:26:53 2015
Data File Name	5.D		
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BAC-1

Response

Signal: 5.d\FID1A.ch

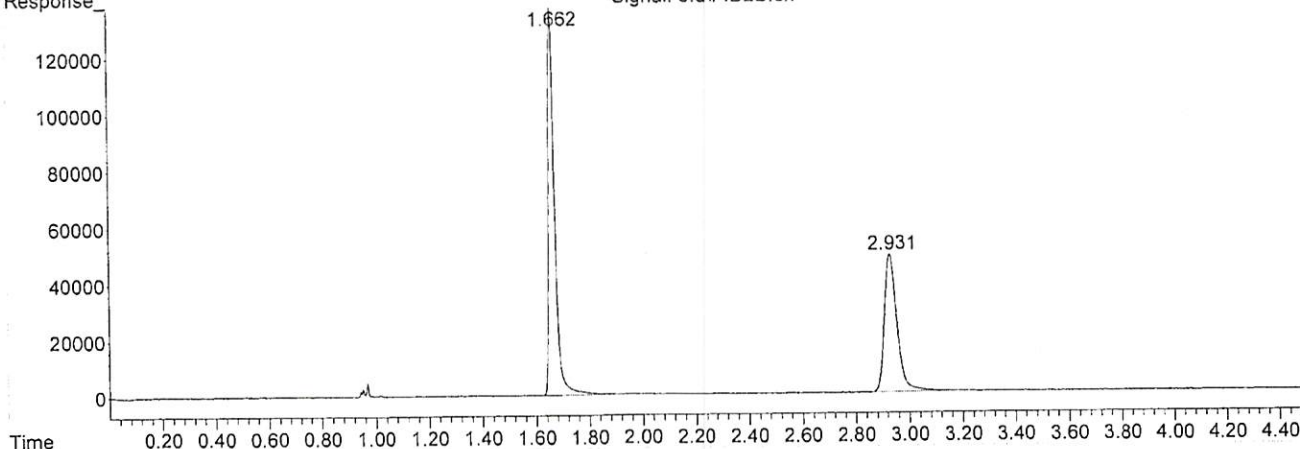


Name	Ret Time	Amount (g/dL)	Target Response (Area)
METHANOL	0.000	0.000	0
ACETONE	0.000	0.000	0
i-PROPANOL	0.000	0.000	0
n-PROPANOL	2.510	0.020	1648271
ETHANOL	1.524	0.297	2295921

BAC-2

Response

Signal: 5.d\FID2B.ch



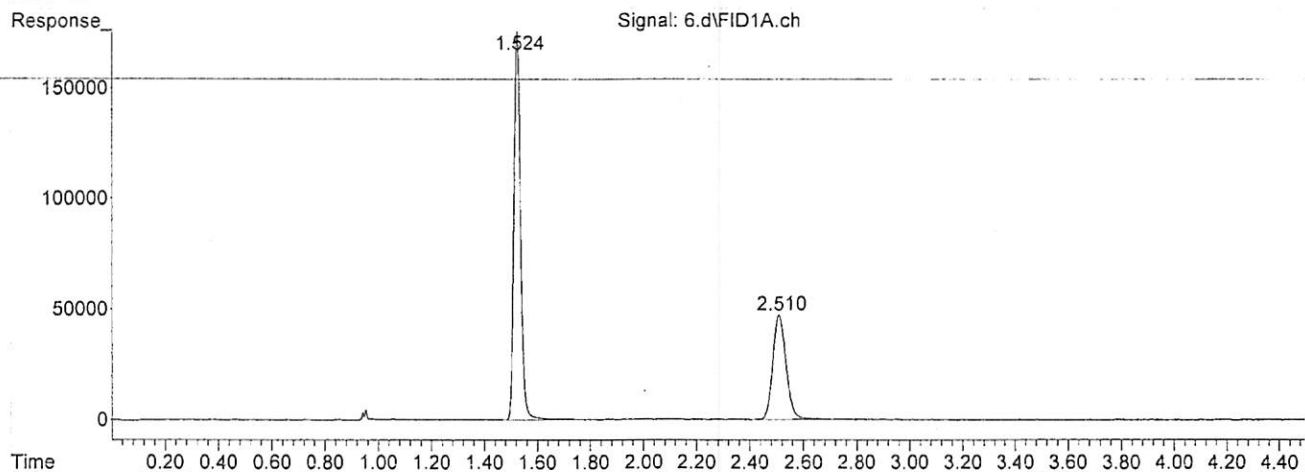
Name	Ret Time	Target Response (Area)
METHANOL #2	0.000	0
ACETONE #2	0.000	0
i-PROPANOL #2	0.000	0
n-PROPANOL #2	2.931	1605096
ETHANOL #2	1.662	2284584

Harris County Institute of Forensic Sciences

*Aus*

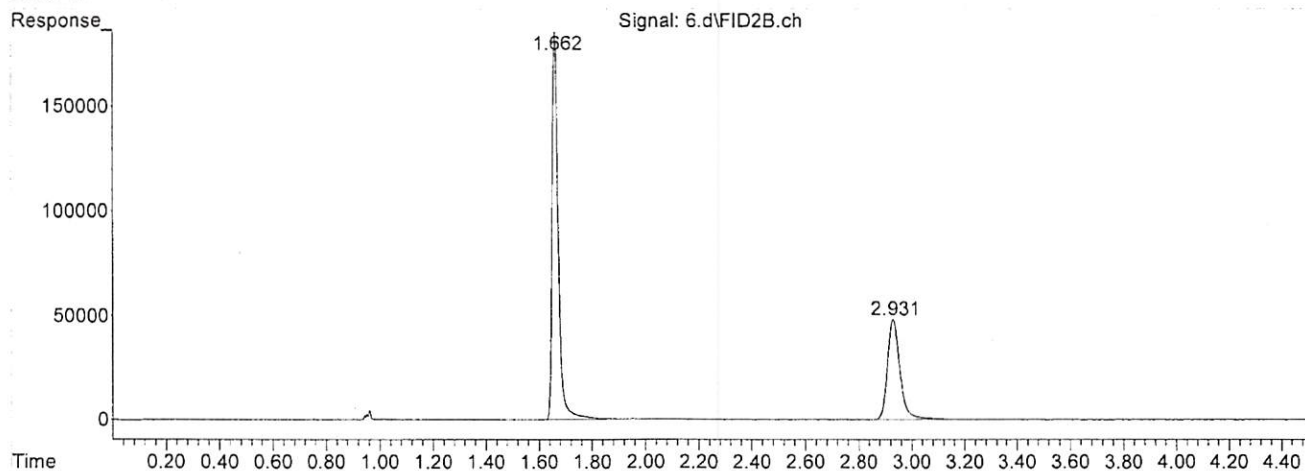
Sample Name 0.400 STD Instrument Name GC-2  
 Misc Info RANGE (0.380-0.420)  
 Tray/Vial 1/6 Operator AAS  
 Date Acquired 6/11/2015 11:21 Acq. Method File ALCOHOL.M  
 Data File Name 6.D Last Calibrated Thu Jun 11 11:26:53 2015  
 Data Path C:\MSDCHEM\1\DATA\JUNE 2015\061115\_ETOH CALIBRATION CURVE\6.D

BAC-1



Name	Ret Time	Amount (g/dL)	Target Response (Area)
METHANOL	0.000	0.000	0
ACETONE	0.000	0.000	0
i-PROPANOL	0.000	0.000	0
n-PROPANOL	2.510	0.020	1631054
ETHANOL	1.524	0.401	3066668

BAC-2



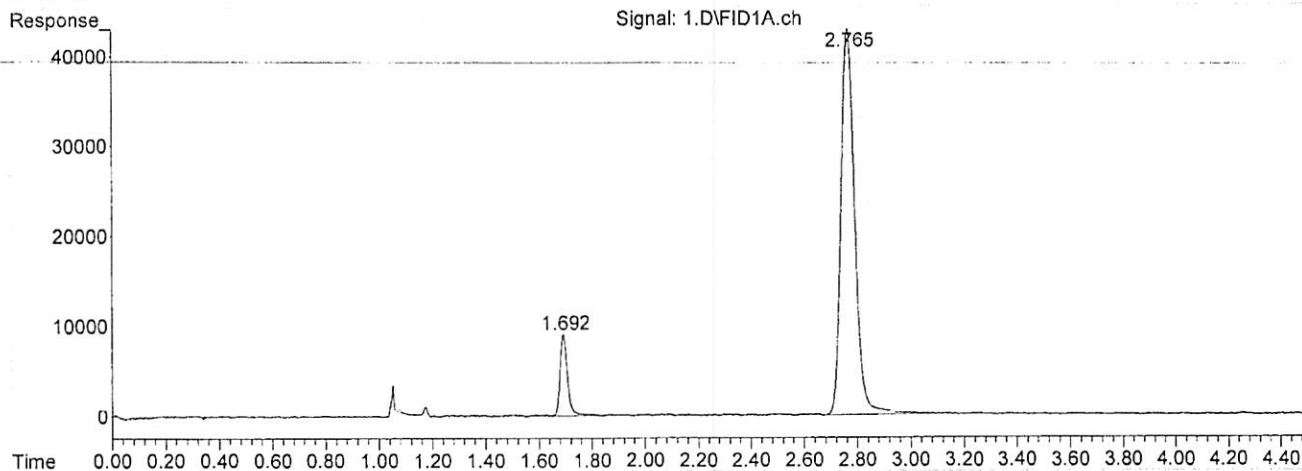
Name	Ret Time	Target Response (Area)
METHANOL #2	0.000	0
ACETONE #2	0.000	0
i-PROPANOL #2	0.000	0
n-PROPANOL #2	2.931	1590029
ETHANOL #2	1.662	3052151

KP

# Harris County Institute of Forensic Sciences

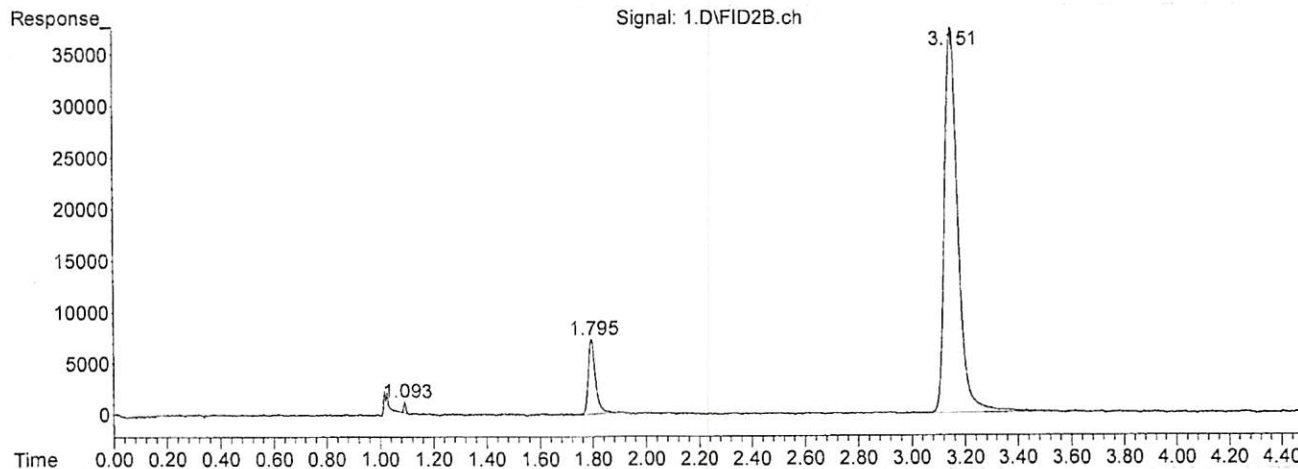
Sample Name	0.025 STD	Instrument Name	GC-1
Misc Info	RANGE (0.022-0.027)		
Tray/Vial	1/1	Operator	KP
Date Acquired	6/22/2015 8:01	Acq. Method File	ALCOHOL.M
Data File Name	1.D	Last Calibrated	Mon Jun 22 08:06:55 2015
Data Path	C:\MSDCHEM\1\DATA\JUNE 2015\062215_ETOH CALIBRATION CURVE\1.D		

## BAC-1



Name	Ret Time	Amount (g/dL)	Target Response (Area)
METHANOL	0.000	0.000	0
ACETONE	0.000	0.000	0
i-PROPANOL	0.000	0.000	0
n-PROPANOL	2.765	0.020	1542908
ETHANOL	1.692	0.024	178016

## BAC-2



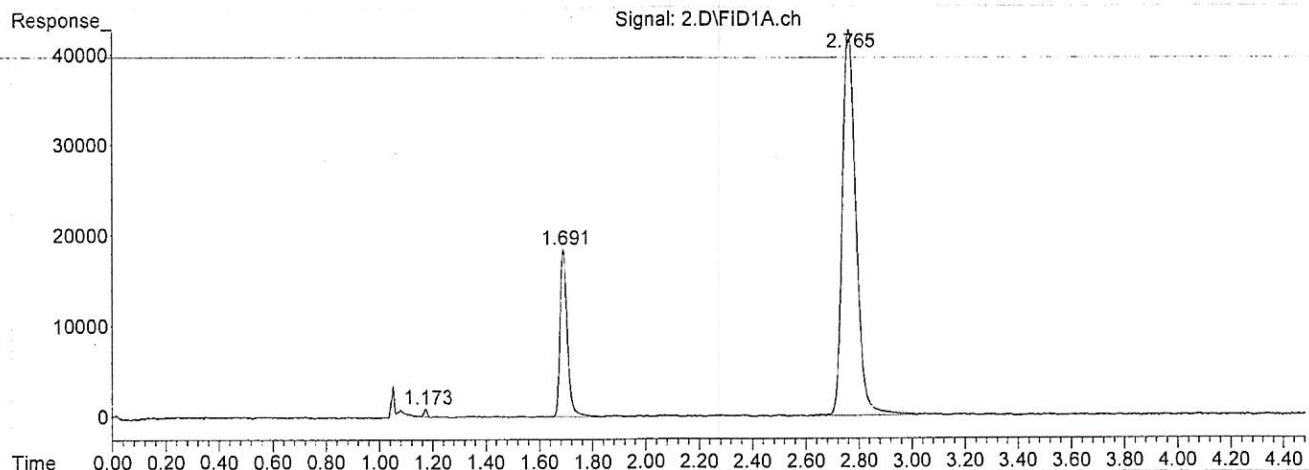
Name	Ret Time	Target Response (Area)
METHANOL #2	0.000	0
ACETONE #2	0.000	0
i-PROPANOL #2	0.000	0
n-PROPANOL #2	3.151	1310860
ETHANOL #2	1.795	138229

KP

# Harris County Institute of Forensic Sciences

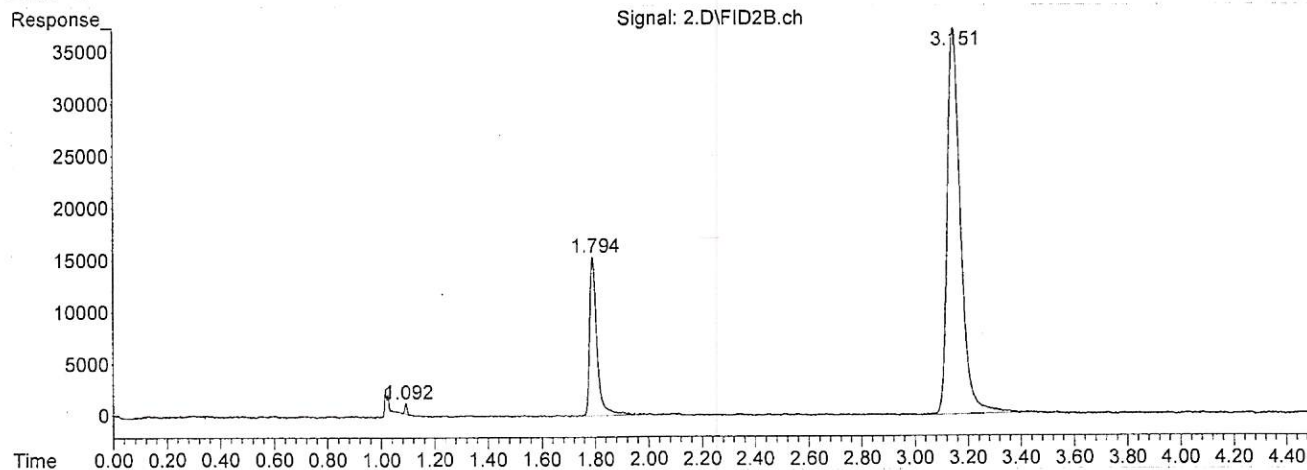
Sample Name 0.050 STD Instrument Name GC-1  
 Misc Info RANGE (0.047-0.052)  
 Tray/Vial 1/2 Operator KP  
 Date Acquired 6/22/2015 8:09 Acq. Method File ALCOHOL.M  
 Data File Name 2.D Last Calibrated Mon Jun 22 08:14:52 2015  
 Data Path C:\MSDCHEM\1\DATA\JUNE 2015\062215\_ETOH CALIBRATION CURVE\2.D

BAC-1



Name	Ret Time	Amount (g/dL)	Target Response (Area)
METHANOL	0.000	0.000	0
ACETONE	0.000	0.000	0
i-PROPANOL	0.000	0.000	0
n-PROPANOL	2.765	0.020	1526072
ETHANOL	1.691	0.049	349862

BAC-2



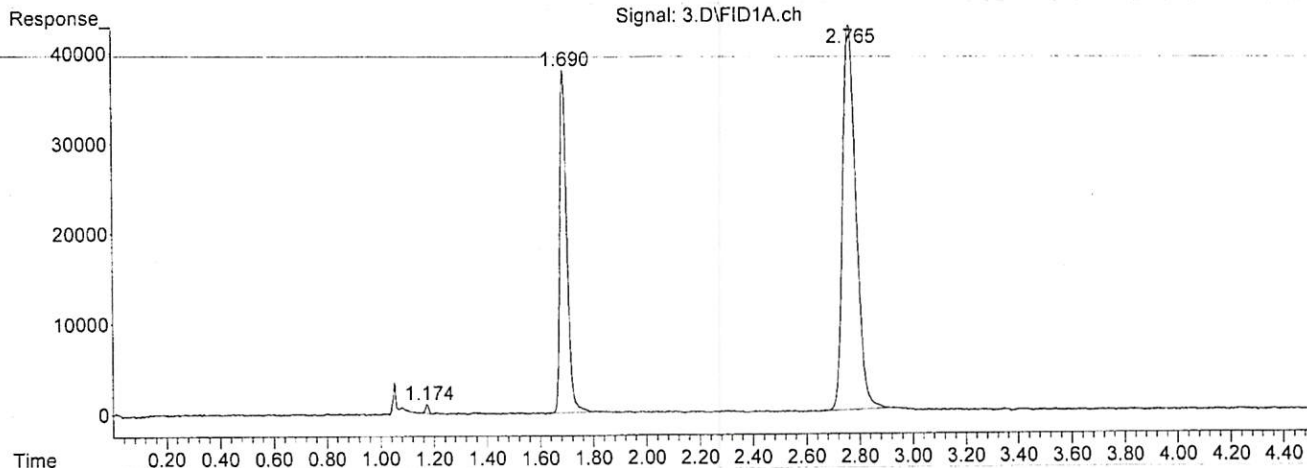
Name	Ret Time	Target Response (Area)
METHANOL #2	0.000	0
ACETONE #2	0.000	0
i-PROPANOL #2	0.000	0
n-PROPANOL #2	3.151	1292527
ETHANOL #2	1.794	295042

Kp

# Harris County Institute of Forensic Sciences

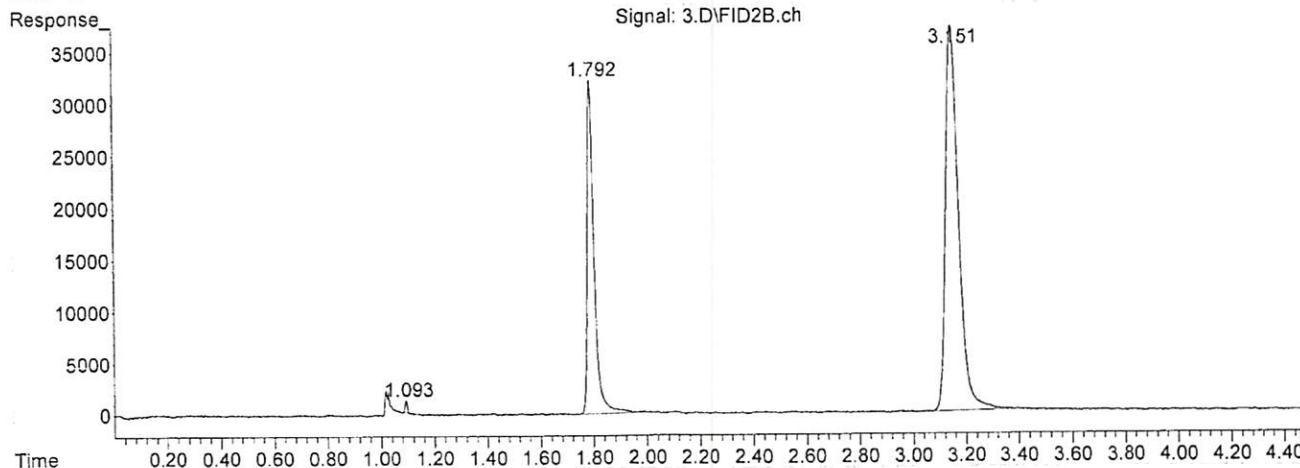
Sample Name 0.100 STD Instrument Name GC-1  
 Misc Info RANGE (0.095-0.105)  
 Tray/Vial 1/3 Operator KP  
 Date Acquired 6/22/2015 8:17 Acq. Method File ALCOHOL.M  
 Data File Name 3.D Last Calibrated Mon Jun 22 08:22:50 2015  
 Data Path C:\MSDCHEM\1\DATA\JUNE 2015\062215\_ETOH CALIBRATION CURVE\3.D

BAC-1



Name	Ret Time	Amount (g/dL)	Target Response (Area)
METHANOL	0.000	0.000	0
ACETONE	0.000	0.000	0
i-PROPANOL	0.000	0.000	0
n-PROPANOL	2.765	0.020	1490586
ETHANOL	1.690	0.099	690948

BAC-2



Name	Ret Time	Target Response (Area)
METHANOL #2	0.000	0
ACETONE #2	0.000	0
i-PROPANOL #2	0.000	0
n-PROPANOL #2	3.151	1277446
ETHANOL #2	1.792	585580

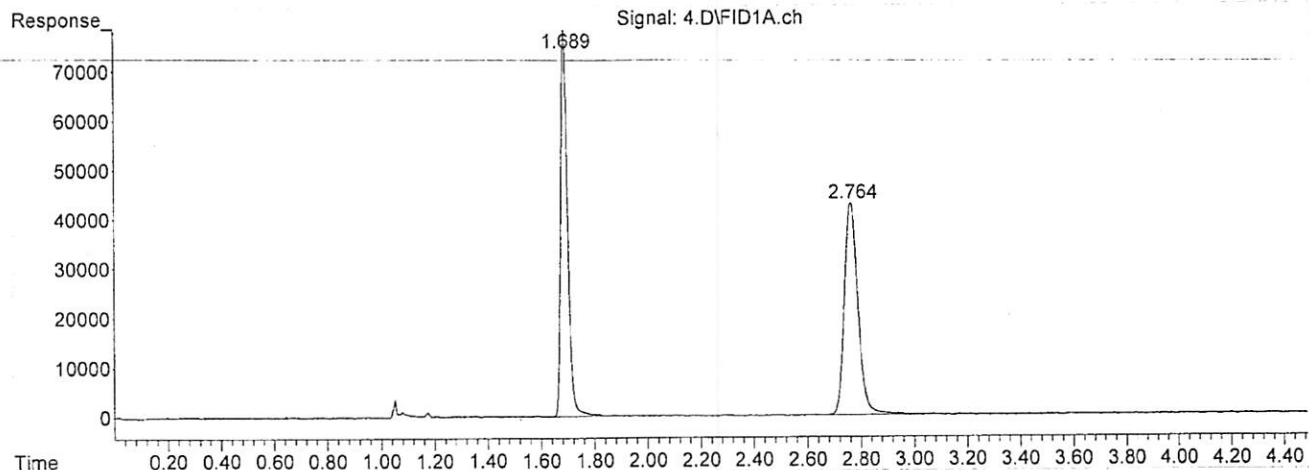


7p

# Harris County Institute of Forensic Sciences

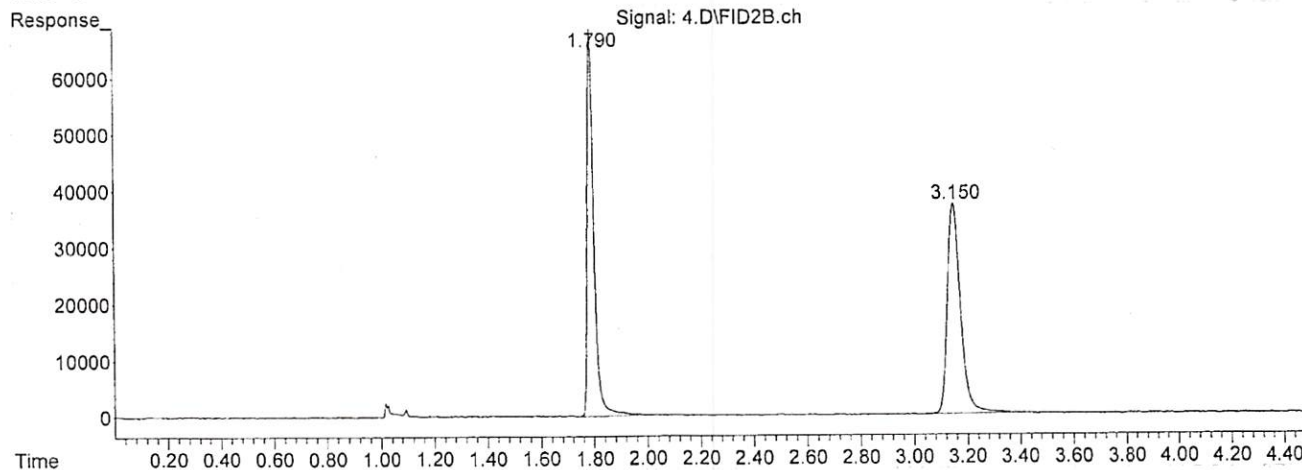
Sample Name 0.200 STD Instrument Name GC-1  
 Misc Info RANGE (0.190-0.210)  
 Tray/Vial 1/4 Operator KP  
 Date Acquired 6/22/2015 8:25 Acq. Method File ALCOHOL.M  
 Data File Name 4.D Last Calibrated Mon Jun 22 08:30:47 2015  
 Data Path C:\MSDCHEM\1\DATA\JUNE 2015\062215\_ETOH CALIBRATION CURVE\4.D

BAC-1



Name	Ret Time	Amount (g/dL)	Target Response (Area)
METHANOL	0.000	0.000	0
ACETONE	0.000	0.000	0
i-PROPANOL	0.000	0.000	0
n-PROPANOL	2.764	0.020	1529326
ETHANOL	1.689	0.199	1416962

BAC-2



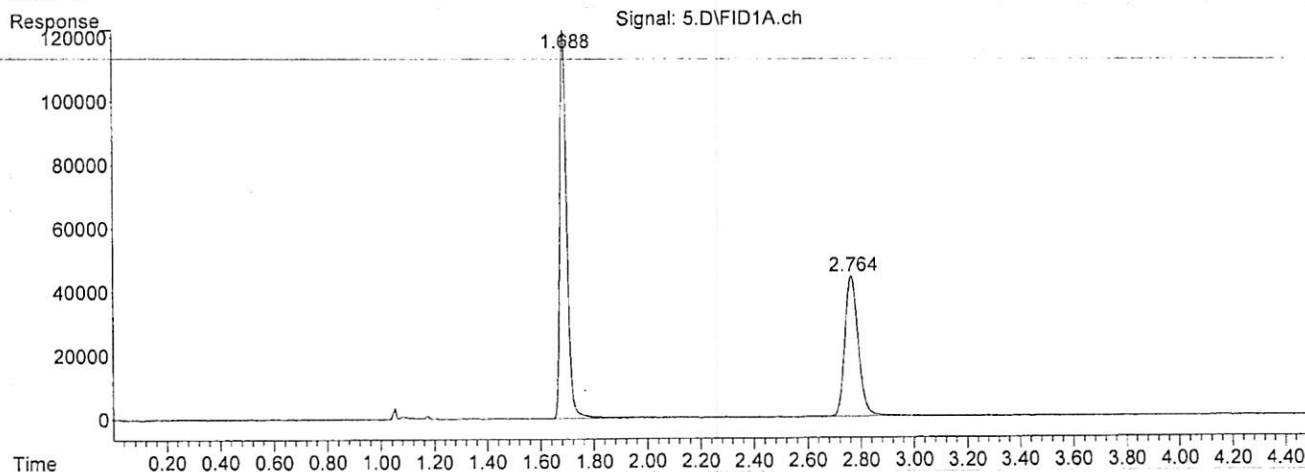
Name	Ret Time	Target Response (Area)
METHANOL #2	0.000	0
ACETONE #2	0.000	0
i-PROPANOL #2	0.000	0
n-PROPANOL #2	3.150	1289288
ETHANOL #2	1.790	1211770

KP

# Harris County Institute of Forensic Sciences

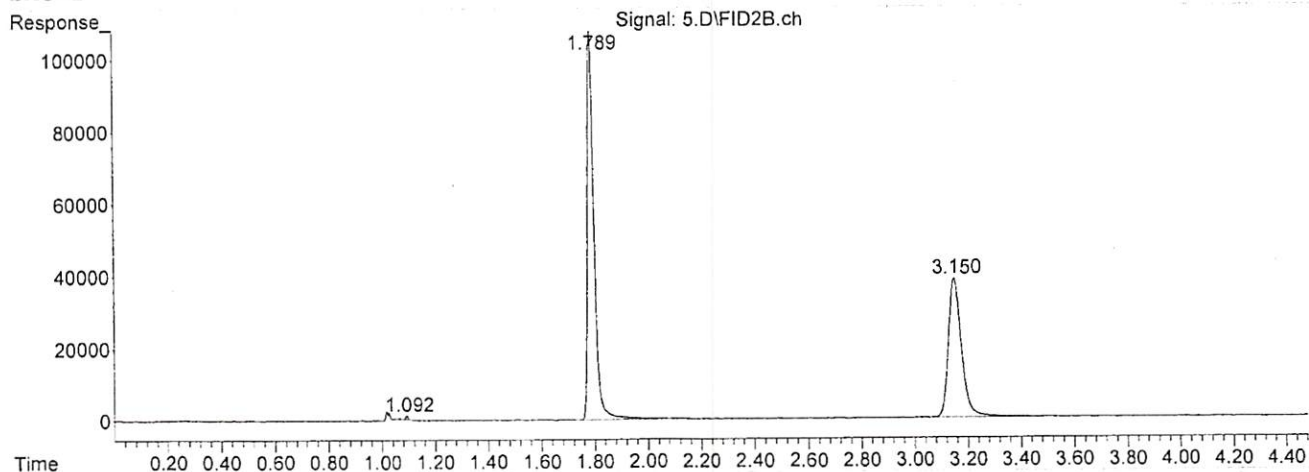
Sample Name 0.300 STD Instrument Name GC-1  
 Misc Info RANGE (0.285-0.315)  
 Tray/Vial 1/5 Operator KP  
 Date Acquired 6/22/2015 8:33 Acq. Method File ALCOHOL.M  
 Data File Name 5.D Last Calibrated Mon Jun 22 08:38:46 2015  
 Data Path C:\MSDCHEM\1\DATA\JUNE 2015\062215\_ETOH CALIBRATION CURVE\5.D

BAC-1



Name	Ret Time	Amount (g/dL)	Target Response (Area)
METHANOL	0.000	0.000	0
ACETONE	0.000	0.000	0
i-PROPANOL	0.000	0.000	0
n-PROPANOL	2.764	0.020	1553733
ETHANOL	1.688	0.302	2185880

BAC-2

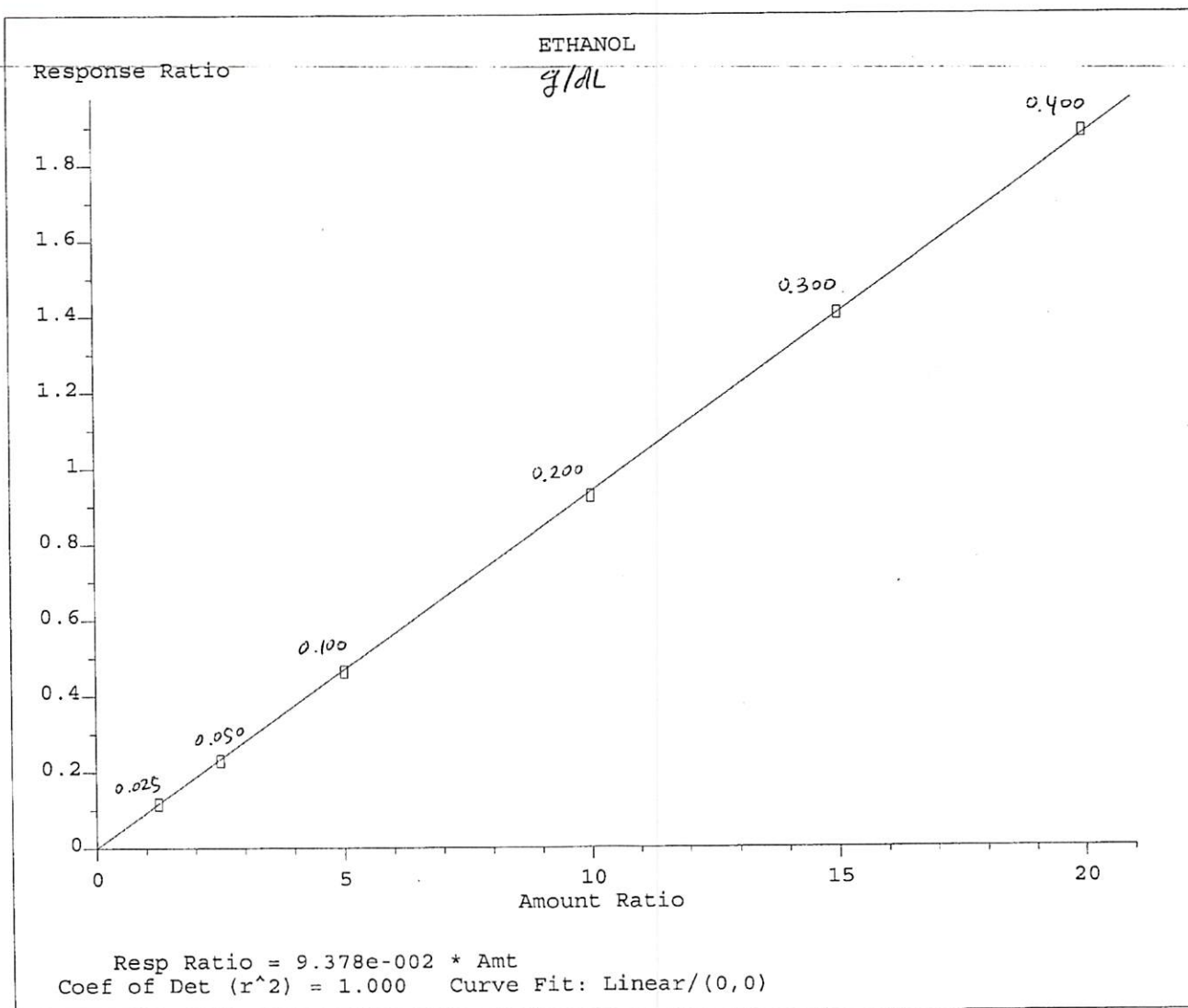


Name	Ret Time	Target Response (Area)
METHANOL #2	0.000	0
ACETONE #2	0.000	0
i-PROPANOL #2	0.000	0
n-PROPANOL #2	3.150	1333704
ETHANOL #2	1.789	1860577

KP

Harris County Institute of Forensic Sciences  
Forensic Alcohol Section  
Calibration Report

Instrument: GC-1 Analyst : KP  
Data Path : C:\msdchem\1\DATA\JUNE 2015\062215\_ETOH CALIBRATION CURVE  
Seq Path : C:\msdchem\1\sequence\ETOH CALIBRATION CURVE\_062215\_KP.S  
Acquisition Method: C:\msdchem\1\METHODS\ALCOHOL.M  
Calibration Date : 06/22/2015 08:46:46 AM



Standard Name	Nominal g/dL	Ethanol Area	n-Propanol Area	Calculated g/dL	Flag
0.025 STD	0.025	178016	1542908	0.025	
0.050 STD	0.050	349862	1526072	0.049	
0.100 STD	0.100	690948	1490586	0.099	
0.200 STD	0.200	1416962	1529326	0.198	
0.300 STD	0.300	2185880	1553733	0.300	
0.400 STD	0.400	2908629	1544448	0.402	

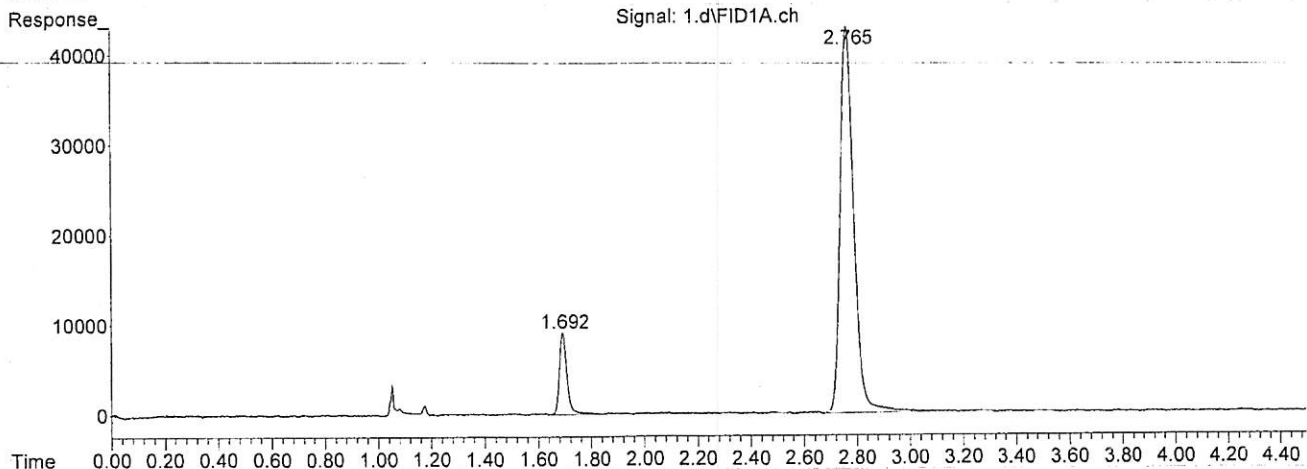
Correlation Coefficient 0.99 or Better  
Calibration may be used.

7p

# Harris County Institute of Forensic Sciences

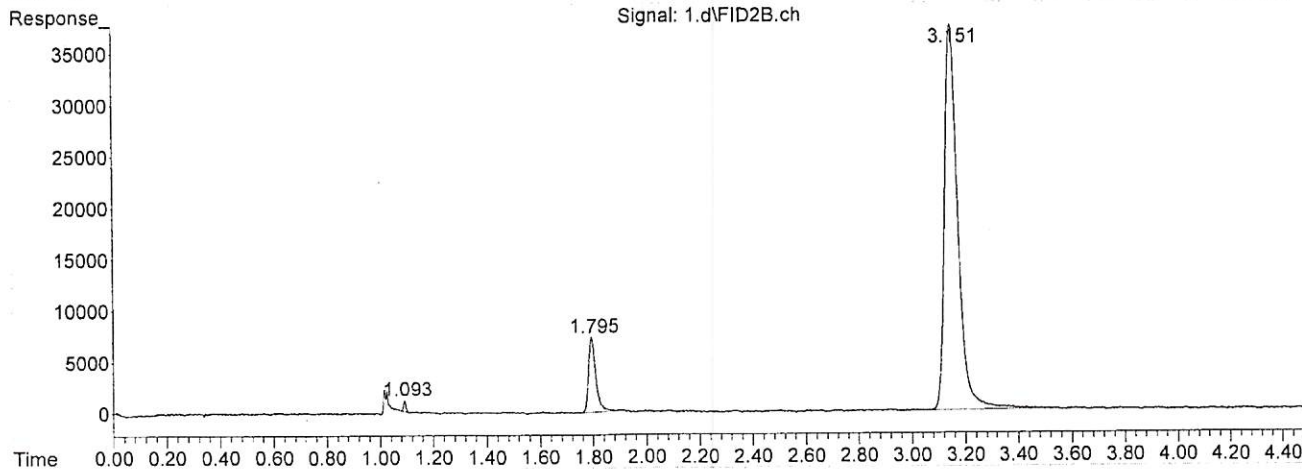
Sample Name 0.025 STD Instrument Name GC-1  
 Misc Info RANGE (0.022-0.027)  
 Tray/Vial 1/1 Operator KP  
 Date Acquired 6/22/2015 8:01 Acq. Method File ALCOHOL.M  
 Data File Name 1.D Last Calibrated Mon Jun 22 08:46:46 2015  
 Data Path C:\msdchem\1\DATA\JUNE 2015\062215\_ETOH CALIBRATION CURVE\1.D

BAC-1



Name	Ret Time	Amount (g/dL)	Target Response (Area)
METHANOL	0.000	0.000	0
ACETONE	0.000	0.000	0
i-PROPANOL	0.000	0.000	0
n-PROPANOL	2.765	0.020	1542908
ETHANOL	1.692	0.024	178016

BAC-2



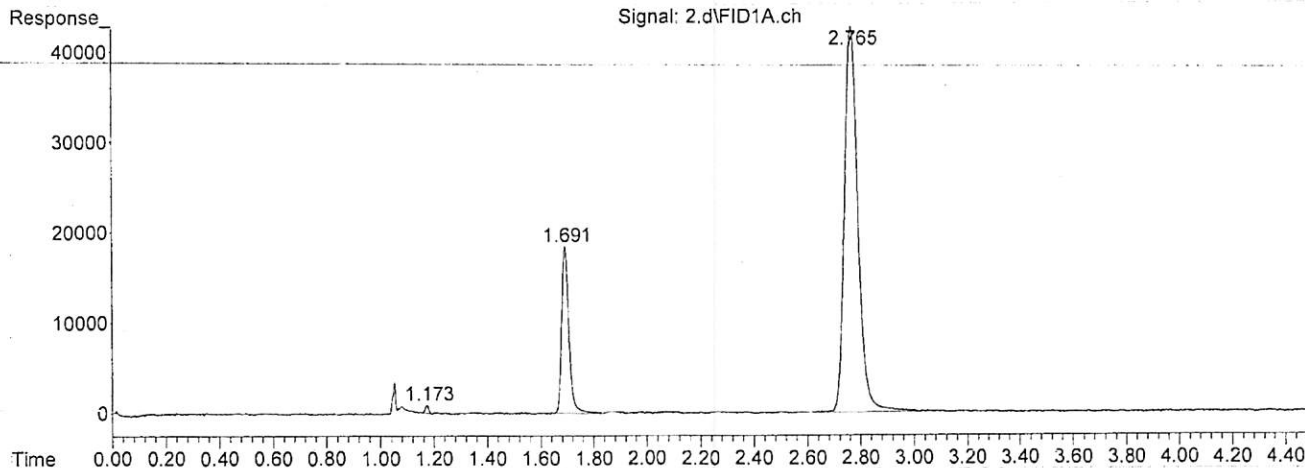
Name	Ret Time	Target Response (Area)
METHANOL #2	0.000	0
ACETONE #2	0.000	0
i-PROPANOL #2	0.000	0
n-PROPANOL #2	3.151	1310860
ETHANOL #2	1.795	138229

79

# Harris County Institute of Forensic Sciences

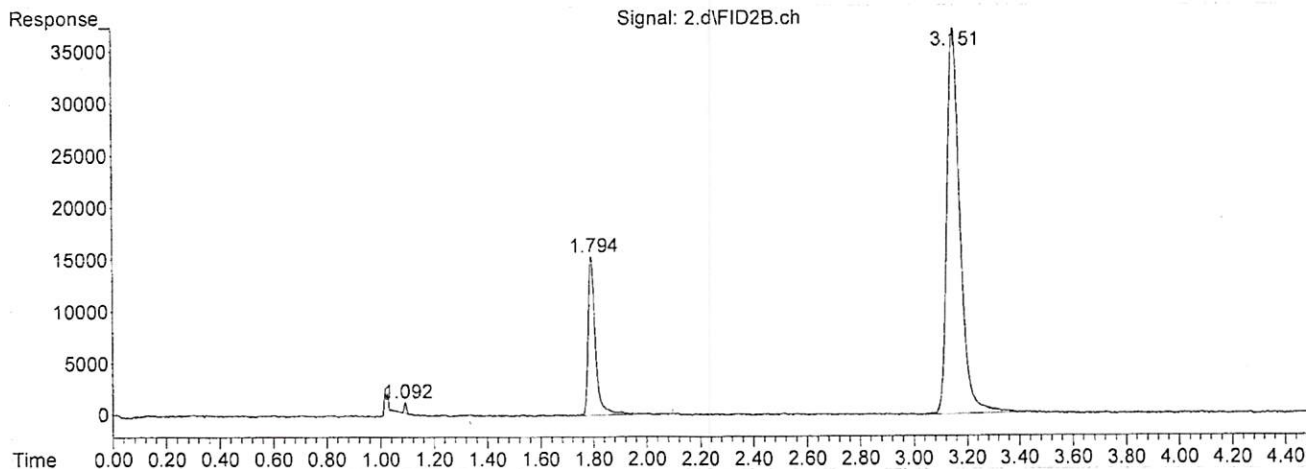
Sample Name 0.050 STD Instrument Name GC-1  
 Misc Info RANGE (0.047-0.052)  
 Tray/Vial 1/2 Operator KP  
 Date Acquired 6/22/2015 8:09 Acq. Method File ALCOHOL.M  
 Data File Name 2.D Last Calibrated Mon Jun 22 08:46:46 2015  
 Data Path C:\msdchem\1\DATA\JUNE 2015\062215\_ETOH CALIBRATION CURVE\2.D

BAC-1



Name	Ret Time	Amount (g/dL)	Target Response (Area)
METHANOL	0.000	0.000	0
ACETONE	0.000	0.000	0
i-PROPANOL	0.000	0.000	0
n-PROPANOL	2.765	0.020	1526072
ETHANOL	1.691	0.048	349862

BAC-2



Name	Ret Time	Target Response (Area)
METHANOL #2	0.000	0
ACETONE #2	0.000	0
i-PROPANOL #2	0.000	0
n-PROPANOL #2	3.151	1292527
ETHANOL #2	1.794	295042

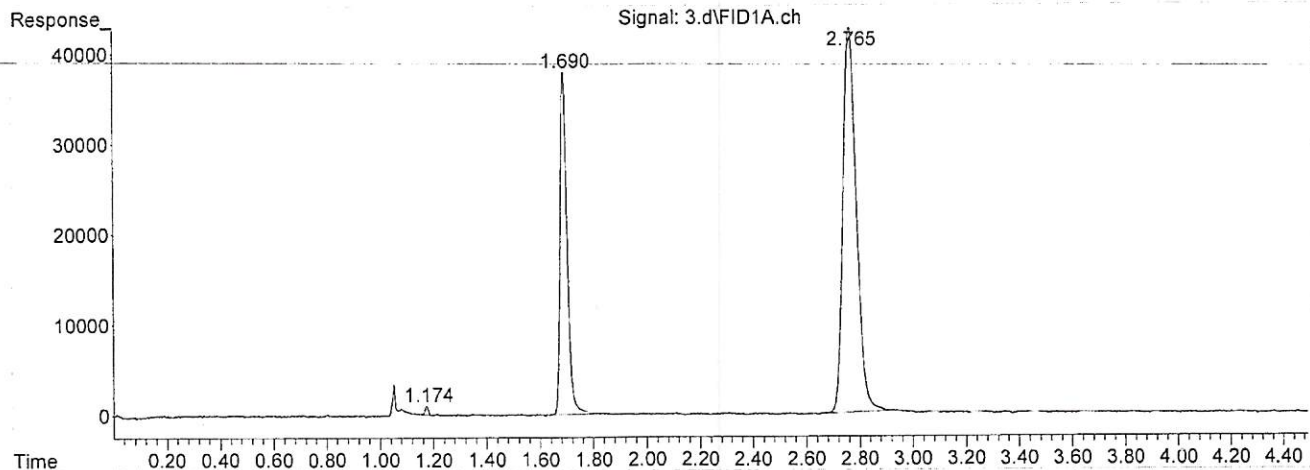


2p

# Harris County Institute of Forensic Sciences

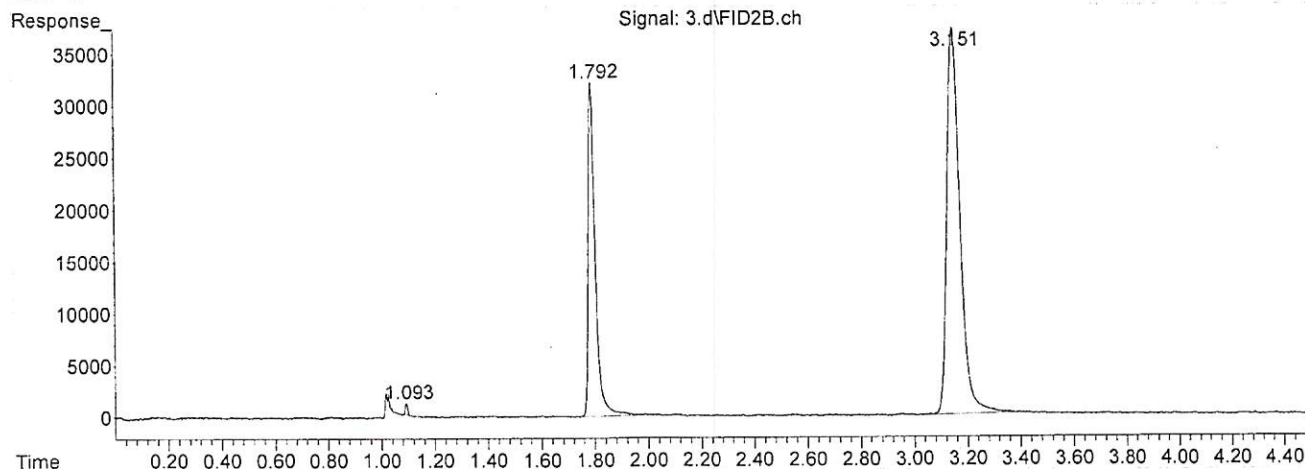
Sample Name 0.100 STD Instrument Name GC-1  
 Misc Info RANGE (0.095-0.105)  
 Tray/Vial 1/3 Operator KP  
 Date Acquired 6/22/2015 8:17 Acq. Method File ALCOHOL.M  
 Data File Name 3.D Last Calibrated Mon Jun 22 08:46:46 2015  
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## BAC-1



Name	Ret Time	Amount (g/dL)	Target Response (Area)
METHANOL	0.000	0.000	0
ACETONE	0.000	0.000	0
i-PROPANOL	0.000	0.000	0
n-PROPANOL	2.765	0.020	1490586
ETHANOL	1.690	0.098	690948

## BAC-2



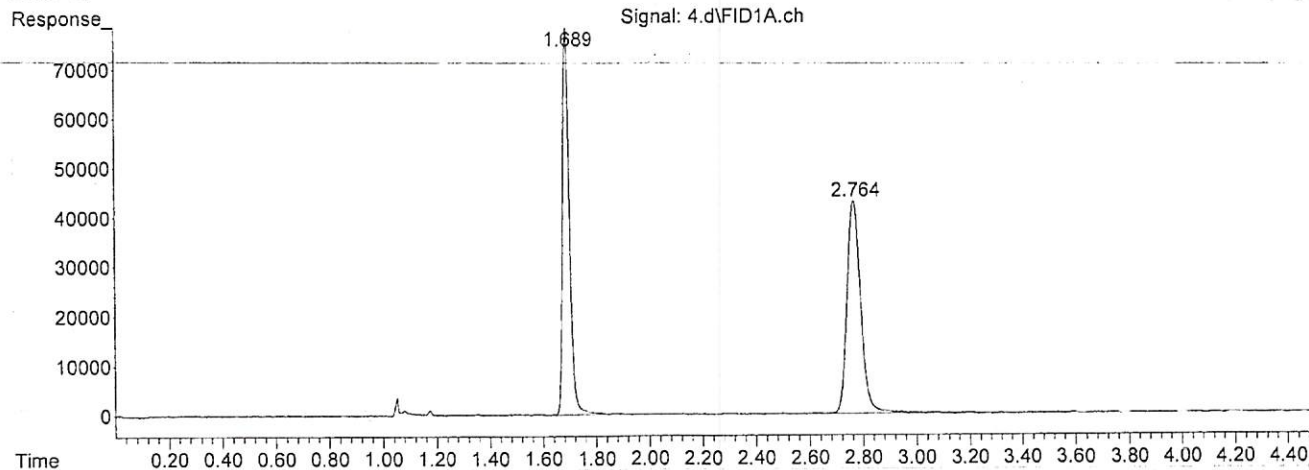
Name	Ret Time	Target Response (Area)
METHANOL #2	0.000	0
ACETONE #2	0.000	0
i-PROPANOL #2	0.000	0
n-PROPANOL #2	3.151	1277446
ETHANOL #2	1.792	585580

KP

# Harris County Institute of Forensic Sciences

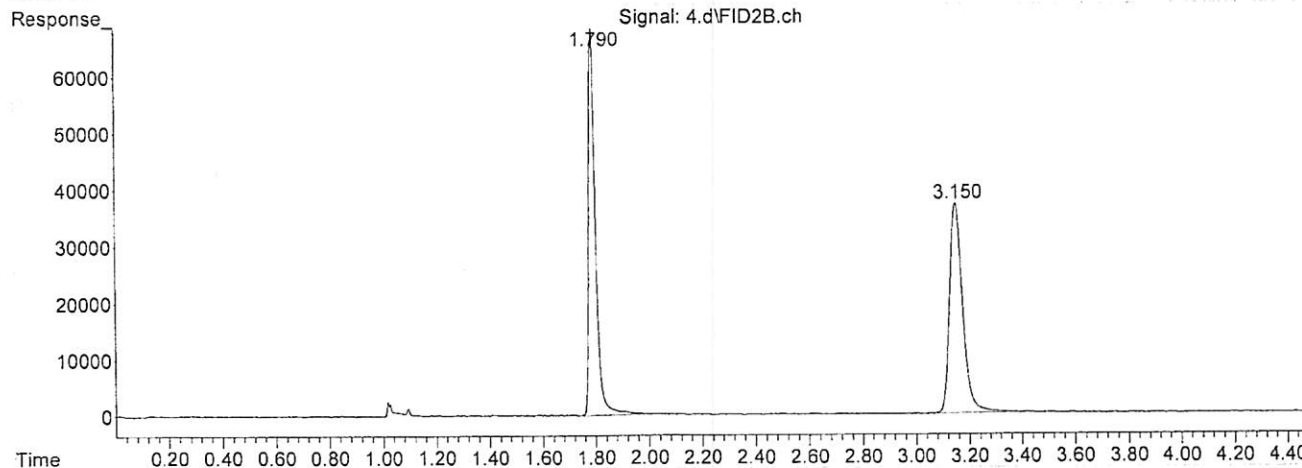
Sample Name 0.200 STD Instrument Name GC-1  
 Misc Info RANGE (0.190-0.210)  
 Tray/Vial 1/4 Operator KP  
 Date Acquired 6/22/2015 8:25 Acq. Method File ALCOHOL.M  
 Data File Name 4.D Last Calibrated Mon Jun 22 08:46:46 2015  
 Data Path C:\msdchem\1\DATA\JUNE 2015\062215\_ETOH CALIBRATION CURVE\4.D

BAC-1



Name	Ret Time	Amount (g/dL)	Target Response (Area)
METHANOL	0.000	0.000	0
ACETONE	0.000	0.000	0
i-PROPANOL	0.000	0.000	0
n-PROPANOL	2.764	0.020	1529326
ETHANOL	1.689	0.197	1416962

BAC-2



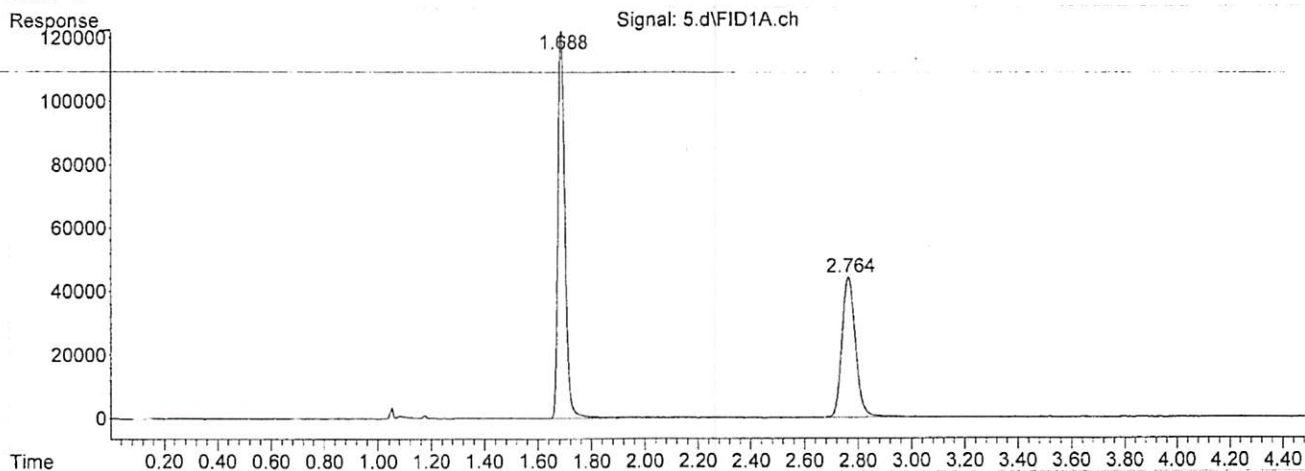
Name	Ret Time	Target Response (Area)
METHANOL #2	0.000	0
ACETONE #2	0.000	0
i-PROPANOL #2	0.000	0
n-PROPANOL #2	3.150	1289288
ETHANOL #2	1.790	1211770

KP

# Harris County Institute of Forensic Sciences

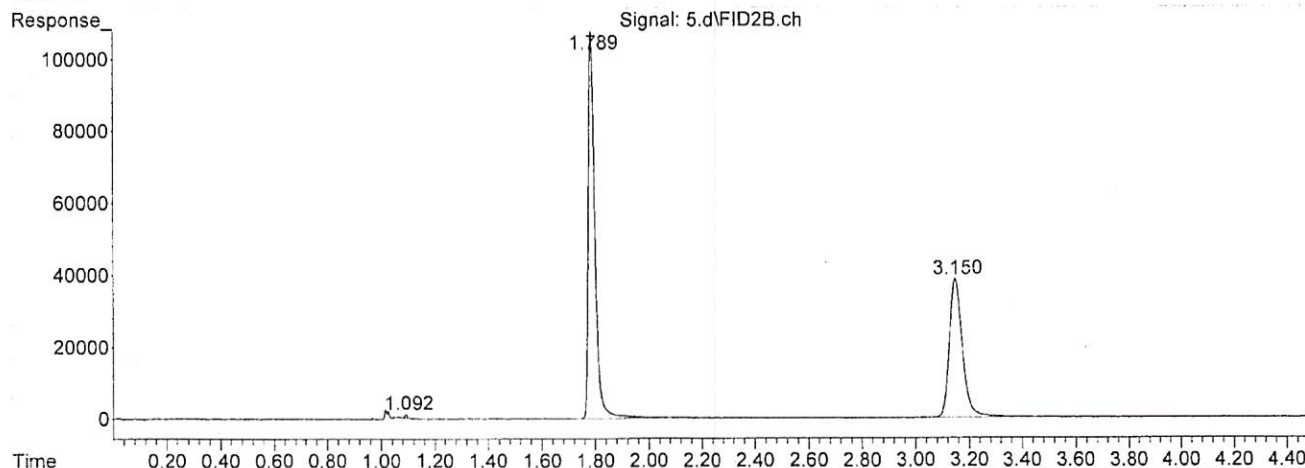
Sample Name 0.300 STD Instrument Name GC-1  
 Misc Info RANGE (0.285-0.315)  
 Tray/Vial 1/5 Operator KP  
 Date Acquired 6/22/2015 8:33 Acq. Method File ALCOHOL.M  
 Data File Name 5.D Last Calibrated Mon Jun 22 08:46:46 2015  
 Data Path C:\msdchem\1\DATA\JUNE 2015\062215\_ETOH CALIBRATION CURVE\5.D

## BAC-1



Name	Ret Time	Amount (g/dL)	Target Response (Area)
METHANOL	0.000	0.000	0
ACETONE	0.000	0.000	0
i-PROPANOL	0.000	0.000	0
n-PROPANOL	2.764	0.020	1553733
ETHANOL	1.688	0.300	2185880

## BAC-2



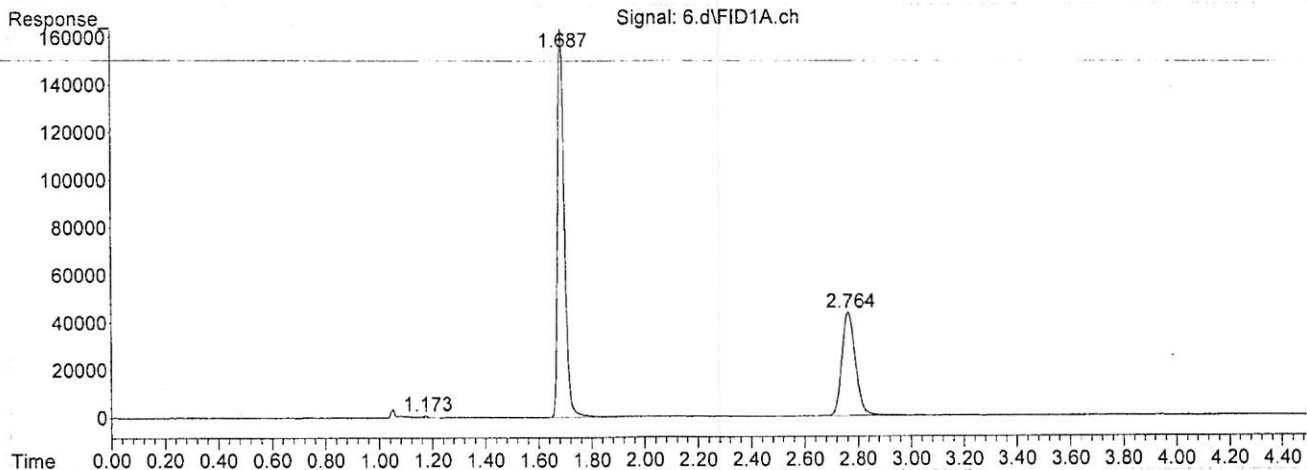
Name	Ret Time	Target Response (Area)
METHANOL #2	0.000	0
ACETONE #2	0.000	0
i-PROPANOL #2	0.000	0
n-PROPANOL #2	3.150	1333704
ETHANOL #2	1.789	1860577

7p

# Harris County Institute of Forensic Sciences

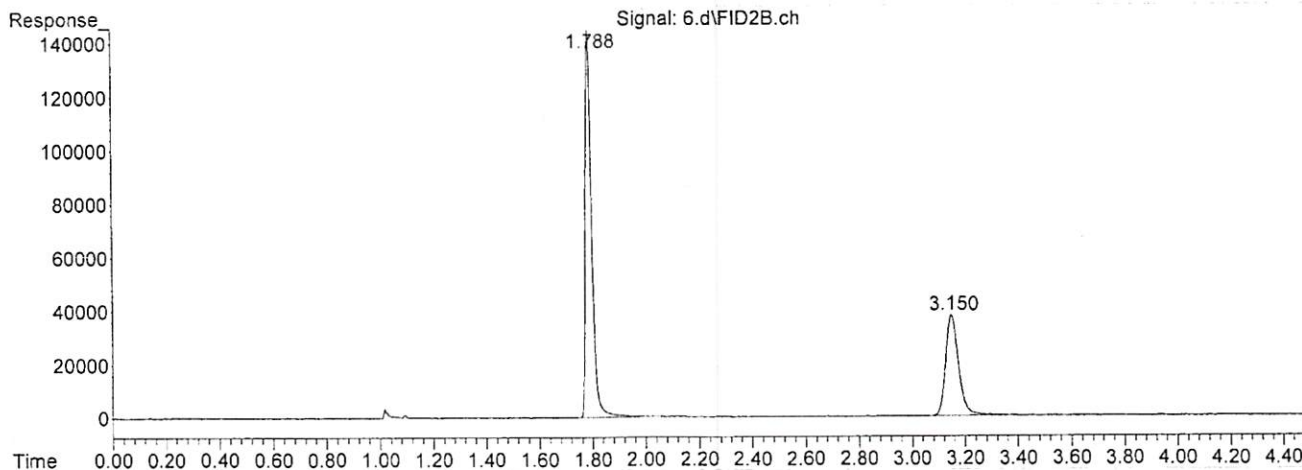
Sample Name 0.400 STD Instrument Name GC-1  
 Misc Info RANGE (0.380-0.420)  
 Tray/Vial 1/6 Operator KP  
 Date Acquired 6/22/2015 8:41 Acq. Method File ALCOHOL.M  
 Data File Name 6.D Last Calibrated Mon Jun 22 08:46:46 2015  
 Data Path C:\MSDCHEM\1\DATA\JUNE 2015\062215\_ETOH CALIBRATION CURVE\6.D

## BAC-1



Name	Ret Time	Amount (g/dL)	Target Response (Area)
METHANOL	0.000	0.000	0
ACETONE	0.000	0.000	0
i-PROPANOL	0.000	0.000	0
n-PROPANOL	2.764	0.020	1544448
ETHANOL	1.687	0.401	2908629

## BAC-2



Name	Ret Time	Target Response (Area)
METHANOL #2	0.000	0
ACETONE #2	0.000	0
i-PROPANOL #2	0.000	0
n-PROPANOL #2	3.150	1296953
ETHANOL #2	1.788	2450002

# **EXHIBIT #6**






News



## Expert witness credentials called into question on DWI cases



Expert witness credentials called into question on DWI cases

By: [Angela Chen](mailto:angela.chen@foxtv.com?body=http://www.fox26houston.com/news/20334) (mailto:angela.chen@foxtv.com?body=<http://www.fox26houston.com/news/20334>)   

POSTED: SEP 07 2016 09:28PM CDT

UPDATED: SEP 07 2016 09:48PM CDT

**HOUSTON** - The Harris County District Attorney's office is re-evaluating a decade's worth of DWI cases.

This comes after the credentials of an expert witness, a toxicology analyst, were called into question.

The analyst has been identified as Dr. Fessessework Guale, who works with the Harris County Institute of Forensic Sciences.

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The issue of concern is her educational background. Court testimony shows that as an expert witness on DWI cases, she has said, under oath, that she has a Master's in Toxicology.

However, a notice sent out by the Harris County District Attorney's office says she, "in fact, received her Master's in Physiological Sciences." But an attorney who said he has cross examined her before and has her resume, showed Fox 26 News that her Master's is actually in physiological sciences for animals and that she has a vet degree from Ethiopia.

"All of her formal education has been toward animals, not the human body. This is very disturbing," said Tyler Flood, the president of the Harris County Criminal Lawyers Association.

A statement from the Institute of Forensic Sciences acknowledges the discrepancy between the title listed on Dr. Guale's degree and her testimony. Below is the statement from the Institute of Forensic Sciences in full.

---

Dr. Fessessework Guale is fully qualified to hold her current position at the IFS and to provide expert testimony in court. However, in response to feedback from the HCDAO regarding recent testimony from Dr. Guale, the new IFS Chief Toxicologist performed a review of Dr. Guale's credentials and some of her testimony. During the review, she identified a difference between the title listed on her degree and her testimony.

Dr. Guale has testified that she possesses a Master of Science degree in Toxicology. In fact, Dr. Guale's degree title is a Master of Science degree in Physiological Science; her master's program included coursework and thesis research in Toxicology. She has participated in continuing education in forensic toxicology throughout her professional career. Dr. Guale has earned certification by the American Board of Forensic Toxicology reflecting her knowledge, training, and experience in forensic toxicology. IFS will review her previous testimonies to determine the extent of action necessary. In the meantime, Dr. Guale's duties have been reassigned pending courtroom testimony re-training.

----

So what does this mean? It could lead to cases being overturned.

This calls into question the validity of all the verdicts and the pleas in every case she has been involved with," said Flood.



The Harris County Criminal Lawyer Association is demanding her immediate resignation and that the DA's office file aggravated perjury charges for false testimony.

:houston&taboola\_utm\_medium=bytaboola&taboola\_utm\_content=thumbnails-g:MIDARTICLE - 1:)  
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Expert witness credentials called into question on DWI cases

# 'Expert' witness under fire for false transcripts

Marcelino Benito, KHOU 10:12 PM, EST September 07, 2016



HOUSTON - An expert witness with Harris County Institute of Forensic Sciences is under fire, accused of lying on the stand.

It puts nearly 10 years of DWI cases in jeopardy.

KHOU 11 News dug up court testimony transcripts that show Dr. Fessessework Guale, a toxicology operations manager at HCIFS, claimed to have a Master's of Science degree in Toxicology from Oklahoma State University.

It turns out that's not true.

"That's a lie, she has a masters in physiological sciences," said Tyler Flood. "But when you look closer it doesn't relate to humans."

Flood is a defense attorney and President of the Harris County Criminal Lawyer's Association. He says that lie on the stand impacts 60-75 of his clients and that's just the beginning.

"There's hundreds, hundreds," said Flood.

HCIFS first employed Dr. Guale back in 2000. She's climbed up the ranks over time and started testifying in DWI and other felony cases as an expert witness for the Harris County District Attorney's office in 2006.

"She needs to be credible," said Dr. Roger Kahn, director of Harris County's Crime Lab. "She needs to be accurate, and we need to be confident her testimony is reliable."

Dr. Kahn says when his office realized Dr. Guale was misrepresenting her credentials in court, they took action and notified the DA's office.

They've since alerted defense attorney's across our area to review their cases.

"Our reputation means everything to us," said Kahn.

Right now, that reputation is questionable in court. Dr. Guale does have a Doctorate in Veterinary Medicine from Ethiopia, but her toxicology training at Oklahoma State only relates to animals.

"We see which articles she's composed," said Flood. "Articles about rectal temperatures in donkeys."

Flood says cases need to be re-opened.

"Some people may be in prison right now for many, many years because of her testimony," said Flood.

The ME's office tells KHOU 11 News it does believe she's qualified, but is committed to getting to the bottom of why she lied in court.

"It's up to us to restore the credibility of the agency, to do a complete review until the community is satisfied," said Kahn.

Dr. Guale's duties have been reassigned pending courtroom testimony re-training and the completion of the investigation.

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# Ten years of toxicology expert's testimony under review after credentials questioned

By Keith Garvin (<http://www.click2houston.com/author/keithgarvin>) - Anchor/Reporter

Posted: 5:03 PM, September 07, 2016

Updated: 11:06 PM, September 07, 2016



69



69



3 Comments

**HOUSTON** - The Harris County expert witness at the center of the most recent controversy for the district attorney's office is under fire for allegedly not telling the truth -- under oath -- about her education and expertise. It's a dilemma that could impact hundreds if not thousands of DWI cases dating back to 2006.

At her home in Pearland, Dr. Fessessework Guale called the matter a "misunderstanding."

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"My training is in toxicology but the degree says physiological sciences, which is a big area which toxicology is a sub part of it," says Guale. "It's called a sub discipline."

The DA's office informed a group of defense attorneys Tuesday that Guale may have testified in the past her masters was in toxicology -- when it, in fact, is in physiological sciences. Her testimony has been key in numerous DWI convictions over the past decade.

The president of the Harris County Criminal Lawyers Association says his and other groups will ask for Guale to be indicted and never again be allowed to testify in DWI cases.

"We're asking for her resignation, we're asking that all these cases be revisited that she was on," says Attorney Tyler Flood. "We're asking that the DA's office not designate her as an expert witness."



LATEST





The DA's office says its investigation has just begun and right now it is working to find out exactly how many cases Guale has testified in.

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## Toxicologist in Houston reassigned amid credentials review

Posted: Sep 08, 2016 08:30 AM CDT

Updated: Sep 08, 2016 08:30 AM CDT

HOUSTON (AP)  A toxicologist with the Harris County Institute of Forensic Sciences has been reassigned amid a review of alleged discrepancies about her credentials.

Prosecutors this week notified some defense attorneys in Houston about issues related to Dr. Fessessework Guale (fuh-SES'-work gwayl). She's testified as a toxicology expert in drunken driving cases since 2006.

Tyler Flood, who's president of the Harris County Criminal Lawyers Association, says Guale should resign. Flood says her testimony could impact hundreds of cases.

Guale says it's all a misunderstanding and that her training is in toxicology, but her master's degree from Oklahoma State University says physiological sciences.

A statement Wednesday from the institute, which is Harris County's medical examiner, says Guale is fully qualified to hold her current position and to provide expert testimony in court.

*Associated Press*

# Toxicologist in Houston reassigned amid credentials review

**Posted: Thursday, September 8, 2016 9:30 am**

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# WOMAN RESPONDS TO ALLEGATIONS THAT SHE LIED ABOUT HER CREDENTIALS IN DWI CASES

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Toxicologist responds to claims she lied on her resume, Jessica Willey reports.

By [Jessica Willey](#)

Wednesday, September 07, 2016 10:53PM

**HARRIS COUNTY (KTRK)** -- The Harris County District Attorney is asking defense attorneys to review a decade's worth of their DWI cases looking for possible errant testimony from a Harris County toxicology witness.

According to a notice sent by the District Attorney's office Tuesday night, "Dr. Fessessework Guale of the Harris County Institute of Forensic Sciences may have testified in past trials that she received her Master's (sic) of Science degree in Toxicology when, in fact, she received her Master's (sic) of Science degree in Physiological Sciences (with coursework and research in toxicology)."

A review of Dr. Guale's resume however reveals that her degree is from a veterinary college. She also holds a doctorate in veterinary medicine from an Ethiopian veterinary school as well.

"I did not lie. It's just a misunderstanding. I actually told the truth," said Guale when questioned about the credentials at her home in Pearland.

Reporter: "You say you have a Masters in toxicology. Is that true?"

Guale: "My Masters is in Physiological Sciences which toxicology is a sub-discipline of."

Guale added she is board certified in forensic toxicology and maintains the basic science behind the effects of alcohol is the same in animals and humans. Guale testifies about a defendant's condition based on their blood/alcohol content.

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Toxicology expert found not to have proper training for cases.

The Harris County Criminal Lawyers Association (HCCLA) is calling for criminal action against Guale, saying she perjured herself. Defendants may have been convicted based on her testimony, according to HCCLA President Tyler Flood.

The Harris County Institute of Forensic Sciences says Guale is being retrained. They are confident in her expertise despite the resume issues.

"There's nothing wrong, nothing to discipline. It's just a misunderstanding," Guale said.

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## Toxicologist in Houston reassigned amid credentials review

Posted: Sep 08, 2016 8:37 AM CDT

Updated: Sep 08, 2016 8:37 AM CDT

HOUSTON (AP) - A toxicologist with the Harris County Institute of Forensic Sciences has been reassigned amid a review of alleged discrepancies about her credentials.

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A statement Wednesday from the institute, which is Harris County's medical examiner, says Guale is fully qualified to hold her current position and to provide expert testimony in court.

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# DWI cases under scrutiny after questions arise on expert's qualifications

**Expert's résumé triggers audit of past 10 years**

By Brian Rogers | September 7, 2016 | Updated: September 7, 2016 9:39pm

0



Photo: Robert Daly, Getty Images



More than 10 years worth of DWI cases are under review after questions were raised about the qualifications of a county lab supervisor, according to the Harris County District Attorney's Office.

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## **Brian Rogers**

Legal Affairs Reporter,  
Houston Chronicle

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# TEXAS FORENSIC SCIENCE COMMISSION • LAB DISCLOSURE FORM (Cont.)

## 1. PERSON COMPLETING THIS FORM

Name: Michal Pierce, M.S., F-ABC  
Laboratory: Harris County Institute of Forensic Sciences (HCIFS)  
Address: 1885 Old Spanish Trail  
City: Houston  
State: Texas Zip Code: 77054  
Home Phone: \_\_\_\_\_  
Work Phone: 713-796-6915  
Email Address (if any): Michal.Pierce@ifs.hctx.net

## 2. SUBJECT OF DISCLOSURE

List the full name, address of the laboratory, facility or individual that is the subject of this disclosure:

Individual/Laboratory: Fessessework Guale of the HCIFS  
Address: 1885 Old Spanish Trail  
City: Houston  
State: Texas Zip Code: 77054  
Year Laboratory Accreditation Obtained: 1999  
Name of National Accrediting Agency: ASCLD/LAB (and ABFT since 2004)  
Date of Examination, Analysis, or Report: \_\_\_\_\_  
Type of Forensic Analysis: Forensic Toxicology  
Laboratory Case Number (if known): various

Is the forensic analysis associated with any law enforcement investigation, prosecution or criminal litigation?

Yes ☒ No ☐

\* If you answered "Yes" above, provide the following information (if possible):

\* Name of Defendant: Not one case specifically

\* Case Number/Cause Number: \_\_\_\_\_  
(if unknown, leave blank)

\* Nature of Case: \_\_\_\_\_  
(e.g. burglary, murder, etc.)

\* The county where case was investigated, prosecuted or filed: Harris

\* The Court: \_\_\_\_\_

\* The Outcome of Case: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\* Names of attorneys in case on both sides (if known): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## 3. WITNESSES

Provide the following about any person with factual knowledge or expertise regarding the facts of the disclosure. Attach separate sheet(s), if necessary.

First Witness (if any):

Name: Teresa Gray, PhD, F-ABFT  
Address: 1885 Old Spanish Trail, Houston, TX 77054  
Daytime Phone: 713-796-6728  
Evening Phone: \_\_\_\_\_  
Fax: \_\_\_\_\_  
Email Address: Teresa.Gray@ifs.hctx.net

Second Witness (if any):

Name: Warren Samms, PhD, F-ABC  
Address: 1885 Old Spanish Trail, Houston, TX 77054  
Daytime Phone: 713-796-6728  
Evening Phone: \_\_\_\_\_  
Fax: \_\_\_\_\_  
Email Address: Warren.Samms@ifs.hctx.net

Third Witness (if any):

Name: Roger Kahn, PhD, F-ABC  
Address: 1885 Old Spanish Trail, Houston, TX 77054  
Daytime Phone: 713-796-6728  
Evening Phone: \_\_\_\_\_  
Fax: \_\_\_\_\_  
Email Address: Roger.Kahn@ifs.hctx.net

## TEXAS FORENSIC SCIENCE COMMISSION • LAB DISCLOSURE FORM (Cont.)

### 4. DESCRIPTION OF DISCLOSURE

Please write a brief statement of the event(s), acts or omissions that are the subject of the disclosure. See Page 6 of this form for guidance on what information should be disclosed to the Commission.

Laboratory management conducted a review of Dr. Guale's credentials and training while evaluating her recent court testimonies. During this review it was discovered that she was misstating one of her degree titles when testifying as an expert witness. Dr. Guale holds a Master of Science degree in Physiological Science, however, she was testifying that she holds a Master of Science degree in Toxicology.



## TEXAS FORENSIC SCIENCE COMMISSION • LAB DISCLOSURE FORM (Cont.)

### 5. DESCRIPTION OF CORRECTIVE ACTION TAKEN

Please describe any corrective actions or corrective action plans the laboratory has developed to address the issues discussed in this disclosure. Please attach copies of the actions taken and/or future corrective plan to this disclosure form.

Please let the Commission know if any other agencies (e.g., Texas Rangers, local district attorney, Inspector General's Office, etc.) are also conducting an investigation of the matter in question. If possible, provide a contact name and phone number for the individual responsible for any other investigation(s).

Dr. Guale was counselled about her testimony. A rigorous expert testimony training plan was developed for her to complete as part of a performance improvement plan. Management disclosed this matter to the Harris County District Attorney's Office and requested that another expert be allowed to testify in her place until she satisfactorily completes her remedial training.



## TEXAS FORENSIC SCIENCE COMMISSION • LAB DISCLOSURE FORM (Cont.)

### 6. EXHIBITS AND ATTACHMENT(S)

Whenever possible, disclosures should be accompanied by readable copies **(NO ORIGINALS)** of any laboratory reports, relevant witness testimony, affidavits of experts about the forensic analysis, or other documents related to your disclosure. Please list and attach any documents that might assist the Commission in evaluating the disclosure. Documents provided will **NOT** be returned. List of attachments:

Attached is Dr. Guale's Master of Science degree and transcript.

~~A list of cases for which Dr. Guale has testified is currently being generated for the Harris County District Attorney's Office. Court transcripts from this list will be reviewed to determine which ones included testimony by Dr. Guale where she misstated her master's degree.~~  
~~Assistant District Attorney Inger Chandler is handling the investigation at the Harris County District Attorney's Office. Her phone number is 713-274-6040.~~

### 7. YOUR SIGNATURE AND VERIFICATION

By signing below, I certify that the statements made by me in this disclosure are true. I also certify that any documents or exhibits attached are true and correct copies, to the best of my knowledge.

Signature: \_\_\_\_\_

Date Signed: September 8, 2016 - 11:28am



---

Texas Forensic Science Commission Complaint #16.48 and Disclosure #16.02

DESCRIPTION OF RESPONSIVE ATTACHMENTS

- 1) Attachment 1: The 2006 employment application of Fesseseswork Guale.

Information regarding the evaluation of her original application by current personnel is included in section 3.

- 2) Attachments 2a-2b: The SOP for testimony monitoring and the standard form used to evaluate staff testimony.

- 3) Attachments 3a-3d: Previous court testimony evaluations from 2009-2015; a signed performance improvement plan for Fesseseswork Guale in 2016; a root cause analysis of the reason for the credential misstatement; and the corrective action report.

- 4) Attachments 4a-4q: Curriculum vitae and Statement of Qualifications before the identified nonconformance; corrected curriculum vitae and Statement of Qualifications following the identified nonconformance; MS transcript and MS degree; DVM degree; several court testimony transcripts reviewed by current personnel during the laboratory's internal investigation.

Information regarding the laboratory's review is included in section 3.

- 5) The laboratory's investigation of the credentialing issue encompassed issues brought up in the allegations made by the Harris County Criminal Lawyers Association, as evident by the corrective action and performance improvement plan issued in August 2016. Therefore, there are no additional investigative records to provide. It should be noted that the IFS Quality Assurance Manager consistently reaches out to both the prosecution and defense counsel after employees testify to obtain evaluations from them. To date, nobody from Mr. Flood's office has returned an evaluation. Therefore, the complaint sent directly to the Commission was the first HCIFS heard of their concerns. Attachments 5a-5b are two examples of communication sent requesting feedback for Fesseseswork Guale's testimony.

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# HARRIS COUNTY, TEXAS

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First Name	Middle Name	Last Name	Other Names
FESSESSEWORK	G	Guale	
Current Address (Number/Street/City/State/Zip Code)	How Long?	Primary Number	
2853 S. Biscay CT, Aurora, CO 80013	5+	(303) 315-7750	
Previous Address (Number/Street/City/State/Zip Code)	How Long?	Alternate Number	
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Arc you between 18-20 years old? <input type="checkbox"/>	Social Security Number:	Are you authorized to work in the United States?	
Are you at least 21 years old? <input checked="" type="checkbox"/>	442-02-9149	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If you are an alien authorized by the Immigration and Naturalization Service to work in the United States, provide the following: Alien Number: <u>Citizen</u> or Admission Number: _____ Expiration of employment authorization, if any: _____			

USA

Please provide your date of birth (required for background check): 07/11/1963

Date you can start: Soon  
REFERRED BY: \_\_\_\_\_

ANNOUNCEMENT NUMBER  
AND JOB TITLE

11364-P  
Toxicologist II

### EDUCATION

	SCHOOL NAME	CITY / STATE	DIPLOMA/DEGREE
High School	Circle last grade completed: 1 2 3 4 5 6 7 8 9 10 11 12 GED <u>Addis Ababa ETHIOPIA.</u>	<u>ETHIOPIA</u>	<u>Diploma</u>
College/ Technical School	<u>Addis Ababa university College of Veterinary medicine</u>	<u>ETHIOPIA</u>	<u>DVM</u>
College/ Technical School	<u>OKlahoma State university</u>	<u>Stillwater OK</u>	<u>MS</u>
Major: <u>Toxicology</u>	Minor: <u>Physiological Science</u>	Graduate Studies: <u>Toxicology</u>	
Undergraduate Hours: <u>202</u>	Graduate Hours: <u>28</u>	*Transcripts may be required.	

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## GENERAL DATA

Answer items 1 through 6 by placing an "X" in the proper column.

	YES	NO
1. Are you now working for or have you previously worked for Harris County? If yes, under what name?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Do you or does your spouse have any relatives presently working for or holding office in Harris County Government? If yes, please list the name(s), relationship and the department in which employed.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Are you aware of any reason which would keep you from being bonded? If yes, describe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Are you licensed to operate a motor vehicle?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Driver's License    Number: <u>00-203-1394</u> State: <u>CO</u> Class: <u>R</u> Expiration: <u>07-11-2011</u> <input type="checkbox"/> Identification    Endorsements: _____		
5. Are you willing to work the hours assigned?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Have you ever been convicted of an offense? Please include driving while intoxicated or driving under the influence of drugs. (Exclude minor traffic violations.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Other language(s) fluently spoken: <u>Amharic</u> Read: <u>Amharic</u> Write: <u>Amharic</u>		
8. Machine and equipment skills:		
GC, GC/MS, LC/MS, HPLC ELISA, TCC etc.	Typing-WPM:	PC software applications: <u>LIMS</u>
9. Special qualifications and skills: (Use this space to indicate any experience, skills, licenses, or certificates, etc., which in your opinion would qualify you for the position you seek.)		
<u>- Board Certified Toxicologist (ABVT)</u>		
<u>- Grant writing, Research and publication.</u>		
<u>- Laboratory management.</u>		
<u>- Consultation and training</u>		
<u>- Expert witness.</u>		

## EMPLOYMENT HISTORY

Employer <u>University of Colorado</u>		Supervisor and Title	
<u>Health Sciences Center.</u>		<u>Dr. James A. Ruth / Toxicologist</u>	
Address (Number/Street/City/State/Zip Code)		Job Title	
<u>4200 E 9th Ave, Denver, CO 80262</u>		<u>Research Associate / Toxicologist</u>	
From (Month/Year)	To (Month/Year)	Final Salary	No. of Persons Supervised
<u>11/2000</u>	<u>Present</u>	<u>60,000</u>	<u>4</u>
Reason for Leaving:		May we contact this employer?	
<u>Still Working</u>		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
		Phone Number: <u>(303) 315-7569</u>	
Full Time <input checked="" type="checkbox"/> Part Time <input type="checkbox"/> Temporary <input type="checkbox"/>			
Duties:			
<u>Manage the day to day operation of the Forensic Toxicology Laboratory, Supervise personnel, Develop and validate analytical methods, Assure QA/QC, compliance for accreditation</u>			
<u>Consult with medical examiners and law enforcement agents</u>			
<u>Testify in Court as an expert witness.</u>			



Employer Oklahoma State University Animal Disease Diagnostic Lab.		Supervisor and Title Dr. Sandra Morgan Toxicologist	
Address (Number/Street/City/State/Zip Code) University place, Stillwater, OK 74075		Job Title Lab Technologist	
From (Month/Year) 12/1991	To (Month/Year) 6/2000	Final Salary 30,000	No. of Persons Supervised None
Reason for Leaving: Relocation of family		May we contact this employer? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Phone Number: (405) 744-6623	Full Time <input checked="" type="checkbox"/> Part Time <input type="checkbox"/> Temporary <input type="checkbox"/>
Duties: Analyse biological, environmental and feed samples for pesticides, heavy metals, drugs, feed additives and other plant toxins using, GC, GC/MS, TLC, ELISA, HPLC, Flame and graphite AA, and Bench chemistry.			
Employer Addis Ababa University College of Agriculture		Supervisor and Title Dr. Gosshe Wolde	
Address (Number/Street/City/State/Zip Code) Debre Zeit, Ethiopia		Job Title Lecturer	
From (Month/Year) 07/1990	To (Month/Year) 08/1991	Final Salary 30,000	No. of Persons Supervised None
Reason for Leaving: Coming to America.		May we contact this employer? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No not available Phone Number: ( )	Full Time <input checked="" type="checkbox"/> Part Time <input type="checkbox"/> Temporary <input type="checkbox"/>
Duties: Lecture to students of Agriculture department of Animal Science - Title of the lecture was Animal physiology. provide practical training on Animal Husbandry.			
Employer		Supervisor and Title	
Address (Number/Street/City/State/Zip Code)		Job Title	
From (Month/Year)	To (Month/Year)	Final Salary	No. of Persons Supervised
Reason for Leaving:		May we contact this employer? <input type="checkbox"/> Yes <input type="checkbox"/> No Phone Number: ( )	Full Time <input type="checkbox"/> Part Time <input type="checkbox"/> Temporary <input type="checkbox"/>
Duties:			



Employer			Supervisor and Title	
Address (Number/Street/City/State/Zip Code)			Job Title	
From (Month/Year)	To (Month/Year)	Final Salary	No. of Persons Supervised	Full Time <input type="checkbox"/>
Reason for Leaving:		May we contact this employer? <input type="checkbox"/> Yes <input type="checkbox"/> No		Part Time <input type="checkbox"/>
Duties:		Phone Number: ( )		Temporary <input type="checkbox"/>

### REFERENCES

List three persons other than relatives who have definite knowledge of your qualifications.

Full Name	Home or Business Address (Number/Street/City/State/Zip Code)	Phone Number	Business or Occupation	Years Acquainted
James A. Ruth	4200 E 5th, Denver, CO 80262	(303) 315-7569	F. Toxicologist	5+
Karyn Bischoff	Cornell University Ithaca, NY 14853	(607) 253-3900	Toxicologist	10
Sandra Morgan	Oklahoma State University Animal Diag. Lab	(405) 744-6623	Toxicologist	10

By submitting and signing this application, I authorize and request any public or private business or other employee for whom I have worked or been employed, or with whom I have sought employment, to supply Harris County with any and all records pertaining to me that have been kept in the usual course of business, including but not limited to; drug and alcohol test results obtained within six months of the date of request for information by Harris County. The information obtained may be used by Harris County in making decisions with regard to my employment.

I authorize investigation of all statements contained in this application. I certify that there are no willful misrepresentations, omissions or falsifications in the foregoing statements and answers to questions. I am aware that should an investigation disclose any misrepresentation, omission or falsification, my application may be rejected, or if already employed, my employment may be terminated. References and previous employer will be contacted to confirm statements unless otherwise indicated. I also understand that if offered employment by Harris County, will be required to pass a drug test as a condition of employment.

~~APPLICATIONS WILL NOT BE CONSIDERED UNLESS SIGNED, DATED AND ALL QUESTIONS ARE ANSWERED~~

DATE: 4/25/05

APPLICANT'S SIGNATURE:

*[Signature]*

Revised 8/2005

Fessessework Guale, DVM, MS, D. ABVT  
2853 S. Biscay CT  
Aurora, CO 80013  
Phone: 303-315-7750  
E-mail: fessessework.guale@uchsc.edu

## Education

1993-1996: Oklahoma State University, Stillwater, Oklahoma.

MS. Toxicology, Physiological Sciences, College of Veterinary Medicine.

1985-1990: Addis Ababa University, Ethiopia.

DVM. College of Veterinary Medicine

1979-1981: Addis Ababa University, Ethiopia.

BS. Animal Science, College of Agriculture.

## Professional Experience

11/2000- Present: **Research Associate/Toxicologist**, University of Colorado  
Health Sciences Center.

**Research:** Drug disposition to hair and its application to diagnostic toxicology.  
Study the chemical mechanism underlying drug accumulation and stability of  
drugs in hair, by utilizing both In-vitro and In-vivo methods.

**Laboratory management:** Establish a Veterinary Drug testing section in a  
Forensic toxicology Laboratory:

Manage the day to day activity of the laboratory and personnel.

Develop, validate and apply new analytical methods to identify and Quantify  
drugs and toxins.

Serve as an expert witness in a court of law.

**Consultation:** Consult with veterinarians, animal owners, Law enforcement  
agencies, and medical examiners and provide diagnostic service.

9/2000-11/2000: **QC Supervisor**, Industrial Laboratories Inc., Denver, CO

Review Analytical data generated from GC, GC/MS, HPLC, ICP, AA, Wet  
chemistry and microbiology.

Validate method and standard operating procedures.

Assure adequate quality control measures are taken.

Assure GLP and cGMP compliance.

1/1992-7/2000: **Analytical Toxicologist**, Oklahoma Animal Disease Diagnostic Laboratory.

Analyze biological, environmental and feed samples for chemicals such as, drugs, Pesticides, heavy metals mycotoxins feed additives, petroleum hydrocarbons and other toxins.

Operate and troubleshoot analytical instruments such as, GC, GC/MS, HPLC, GFAA, TLC, ELISA and wet chemistry.

Consult with clients and provide diagnostic service.

Perform research to improve and develop new analytical methods.

Provide training to residents in analytical toxicology.

## **Achievements**

Diplomate, American Board of Veterinary Toxicology, July 1999

Academic Excellence Award, College of Veterinary Medicine, July 1990

Academic Excellence Award, College of Agriculture, June 1981

## **Publications**

K. Bischoff, **F. Guale**: Australian Tea Tree ( *Melaleuca alternifolia*) oil poisoning In three pure bred cats. Journal of Veterinary Diagnostic Investigation, Volume 10.1998, pages 208-210.

**F. Guale**, G. Burrows: Evaluation of Chick Embryo Motoneuron Cultures for the Study of Neurotoxicity. Natural Toxins, Volume 5, Number 3, 1997, pages 115-120.

**F. Guale**, EL. Stair, WB. Johnson, WC. Edwards, JC. Haliburton: Laboratory Diagnosis of Zinc Phosphide Poisoning. Veterinary and Human Toxicology, Volume 36, Number 6, December 1994, pages 517-519.

## **References**

**James A. Ruth, PhD, D. ABFT**

University of Colorado Health Sciences Center

School of Pharmacy, C-238

4200 East Ninth Avenue

Denver, CO 80262

Phone: 303-315-7569

**Sandra Morgan, DVM, MS, D. ABVT**  
Oklahoma Animal Disease Diagnostic Lab  
Stillwater, OK 74078  
Phone: 405-744-6623

**Karyn Bischoff, DVM, MS, D. ABVT**  
Cornell University  
Ithaca, NY 14853  
Phone: 607-253-3900

Harris County Institute of Forensic Sciences		
Section: Quality Management	Approved by: Quality Director	
Document Type: Quality Procedure	Procedure No.: QP08.0022	
Title: Testimony Monitoring	Rev.: 6	

## 1.0 Purpose

- 1.1 This document describes the procedure used to monitor the court testimony of testifying personnel.
- 1.2 This procedure details the responsibilities of testifying personnel in regards to their court testimony.

## 2.0 Scope

- 2.1 This procedure applies to all testifying personnel of the laboratory

## 3.0 Definitions and Abbreviations

- 3.1 Not Applicable

## 4.0 Materials

- 4.1 Not Applicable

## 5.0 Procedure

- 5.1 The testimony of all testifying personnel will be monitored at least once each calendar year in which they testify. The testimony monitoring will be performed as follows:
  - 5.1.1 As soon as an analyst is notified that their testimony is required, the analyst will notify the Quality Manager by email, copying his/her supervisor.
    - A. The email will include at a minimum the HCIFS case number, courtroom number, ADA name, and the approximate time he/she is expected at court. If the court case number is known, that should be included in the email as well.
  - 5.1.2 The Quality Manager or designee will request a laboratory manager/supervisor, a Quality Management staff member, or an officer of the court to monitor the testimony.
  - 5.1.3 A testimony evaluation form (QAF08.006) will be provided to the evaluator.
  - 5.1.4 The testimony evaluator will complete the form and return it back to the Quality Manager.
  - 5.1.5 Managers will review the evaluation form with the testifying analyst. The manager and analyst will document the feedback by signing the evaluation form.
  - 5.1.6 The testimony evaluation form will then be forwarded back to the Quality



Harris County Institute of Forensic Sciences		
Section: Quality Management	Approved by: Quality Director	
Document Type: Quality Procedure	Procedure No.: QP08.0022	
Title: Testimony Monitoring		Rev.: 6

Manager or Quality Director for review.

5.1.7 The testimony evaluation forms are uploaded into Q-Pulse once completed.

5.2 Court testimony evaluation may be accomplished through telephonic solicitation or by direct observation.

5.3 Corrective action shall be taken if the evaluation is less than "Acceptable".

5.3.1 Corrective action may be in the form of counseling, additional training, and/or retaking Moot Court.

5.4 Testifying personnel shall abide by the rules of the court as applicable, and testimony shall be presented in a professional and technically competent manner.

5.5 Testifying personnel or expert witnesses are responsible for the following:

5.5.1 Complying with a subpoena or attorney directive regarding the place and time of the appearance. The analyst is responsible for preparing for his or her testimony for consulting as necessary with the attorney, and for the preparation of all necessary notes.

5.5.2 Dealing with scheduling conflicts.  
If a schedule or other conflict exists which will potentially prevent the analyst from appearing in court as requested, it is the responsibility of the analyst to notify the submitting agency or the subpoenaing party as soon as possible.

5.5.3 Dealing with testimony conflicts.  
If the analyst has been asked to provide testimony on a subject with which he or she is not familiar with, he or she must notify the Section Manager/Director or Crime Laboratory Director and the submitting agency.

5.5.4 Maintaining technical competency in their area of expertise.  
If the analyst feels that he or she is deficient in the knowledge needed to provide accurate testimony, the analyst is responsible to inform the Section Manager/Director of the deficiency. The Section Manager/Director shall take appropriate remedial actions as soon as possible.

5.5.5 Maintaining professional demeanor at all times.  
Business attire is required.

5.5.6 Being technically prepared for testimony.

Harris County Institute of Forensic Sciences		
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Title: Testimony Monitoring		Rev.: 6

The analyst must be familiar with his /her laboratory notes, the final report provided to the submitting agency and related articles or technical information prior to the testimony. The analyst shall be able to answer questions that are reasonably anticipated without fumbling through papers. The testimony should be previously discussed with the attorney to prepare the expert for the line of questioning anticipated.

5.5.7 Being organized.

All paperwork shall be organized and properly labeled.

5.5.8 Providing fair and impartial testimony.

Testimony must be presented in a manner that is accurately interpreted and properly weighted. Testimony shall be geared toward the layperson. When necessary, technical terms shall be defined. If asked to provide a Yes or No answer where either answer would be inappropriate or misleading, the witness should indicate to the attorney that the question cannot be answered with a simple Yes or No answer.

5.5.9 Discussing only topics presented.

The witness is not allowed to volunteer information about evidence that has not been presented or about topics not discussed.

5.5.10 Following ethical conduct.

When testifying, the Crime laboratory staff shall use those sections of the Code of Ethics dealing with courtroom testimony.

5.5.11 Rendering a complete opinion.

When rendering an opinion, it is the responsibility of the analyst to give a complete opinion.

6.0 Data Analysis / Interpretation/ Documentation

6.1 Not Applicable

7.0 Acceptance Criteria

7.1 Not Applicable

8.0 References

- 8.1 International Standards ISO/IEC 17025: 2005 General requirements for the competence of testing and calibration laboratories, 2<sup>nd</sup> edition, International Standards Organization (ISO)/International Electrotechnical Commission (IEC), 2005.

Harris County Institute of Forensic Sciences			
Section: Quality Management		Approved by: Quality Director	
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Title: Testimony Monitoring			Rev.: 6

8.2 ASCLD/LAB International, Supplemental requirements for the accreditation of forensic testing laboratories, 2011 Edition, Ver. 1.1 T.

## 9.0 Revision History

Revision	Description of Change	Reviewed By	Date
0	Excerpt from 2007 Quality Assurance Manual, Section 4.0	TC	0508
1	Reformatting	TC/MNV	0708
2	Added 5.1 and updated 5.2 and 5.3	C. Young	0609
3	Document Changed To Reflect New Name	AS	04/16/10
4	Updated section 8.2 to new edition	TC	1211
5	Updated header	MLP	0813
6	Edited section 5.1	MLP	0414

Harris County Institute of Forensic Sciences		
Section: Quality Management	Approved by: Quality Director	
Document Type: Quality Procedure	Procedure No.: QP08.0022	
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    - A. The email will include at a minimum the HCIFS case number, courtroom number, ADA name, and the approximate time he/she is expected at court. If the court case number is known, that should be included in the email as well.
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Harris County Institute of Forensic Sciences		
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5.3.1 Corrective action may be in the form of counseling, additional training, and/or retaking Moot Court.

5.4 Testifying personnel shall abide by the rules of the court as applicable, and testimony shall be presented in a professional and technically competent manner.

5.5 Testifying personnel or expert witnesses are responsible for the following:

5.5.1 Complying with a subpoena or attorney directive regarding the place and time of the appearance. The analyst is responsible for preparing for his or her testimony for consulting as necessary with the attorney, and for the preparation of all necessary notes.

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If the analyst has been asked to provide testimony on a subject with which he or she is not familiar with, he or she must notify the Section Manager/Director or Crime Laboratory Director and the submitting agency.

5.5.4 Maintaining technical competency in their area of expertise.  
If the analyst feels that he or she is deficient in the knowledge needed to provide accurate testimony, the analyst is responsible to inform the Section Manager/Director of the deficiency. The Section Manager/Director shall take appropriate remedial actions as soon as possible.

5.5.5 Maintaining professional demeanor at all times.  
Business attire is required.

5.5.6 Being technically prepared for testimony.



Harris County Institute of Forensic Sciences		
Section: Quality Management		Approved by: Quality Director
Document Type: Quality Procedure		Procedure No.: QP08.0022
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The analyst must be familiar with his /her laboratory notes, the final report provided to the submitting agency and related articles or technical information prior to the testimony. The analyst shall be able to answer questions that are reasonably anticipated without fumbling through papers. The testimony should be previously discussed with the attorney to prepare the expert for the line of questioning anticipated.

5.5.7 Being organized.

All paperwork shall be organized and properly labeled.

5.5.8 Providing fair and impartial testimony.

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5.5.9 Discussing only topics presented.

The witness is not allowed to volunteer information about evidence that has not been presented or about topics not discussed.

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When testifying, the Crime laboratory staff shall use those sections of the Code of Ethics dealing with courtroom testimony.

5.5.11 Rendering a complete opinion.

When rendering an opinion, it is the responsibility of the analyst to give a complete opinion.

6.0 Data Analysis / Interpretation/ Documentation

6.1 Not Applicable

7.0 Acceptance Criteria

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8.0 References

8.1 International Standards ISO/IEC 17025: 2005 General requirements for the competence of testing and calibration laboratories, 2<sup>nd</sup> edition, International Standards Organization (ISO)/International Electrotechnical Commission (IEC), 2005.

Harris County Institute of Forensic Sciences			
Section: Quality Management		Approved by: Quality Director	
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Title: Testimony Monitoring			Rev.: 6

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## 9.0 Revision History

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0	Excerpt from 2007 Quality Assurance Manual, Section 4.0	TC	0508
1	Reformatting	TC/MNV	0708
2	Added 5.1 and updated 5.2 and 5.3	C. Young	0609
3	Document Changed To Reflect New Name	AS	04/16/10
4	Updated section 8.2 to new edition	TC	1211
5	Updated header	MLP	0813
6	Edited section 5.1	MLP	0414

## TESTIMONY EVALUATION

Witness name: F. Gualc

Date of testimony: 9-16-09

Lab Case No.: HPD

Called as witness for: Prosecution ☒ Defense ☐

Evaluation Method: Direct Observation ☒ Telephone Interview ☐

If telephone: Attorney's name: \_\_\_\_\_ Phone No.: \_\_\_\_\_

(For telephone interviews contact the attorney who subpoenaed the witness for court.)

	YES	NO	N/A
1. Was the witness prepared for court?	<input type="checkbox"/>	<input type="checkbox"/>	
2. Did the witness have to refer to the case file excessively to answer the questions?	<input type="checkbox"/>	<input type="checkbox"/>	<b>X</b>
3. Was the witness' appearance suitable for court? (professional business attire)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4. Did the witness speak clearly and distinctly?	<input type="checkbox"/>	<input type="checkbox"/>	<i>Speak int microphone</i>
5. Did the witness answer questions without volunteering any unnecessary information?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6. Did the witness answer questions directly and objectively for the prosecution?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Did the witness answer questions directly and objectively for the defense?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Was the witness' overall demeanor professional?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9. Did the witness exhibit appropriate knowledge of his/her technical subject?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Did the witness testify within limits of the report?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>NAX</b>
11. Did the witness explain technical procedures with terminology the jury could understand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Did the witness maintain composure under cross-examination?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. If visual aids were utilized, were they professional in appearance and an effective means of educating the jury?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> 1

### OVERALL RATING

Outstanding ☐ Acceptable ☒ Needs Improvement ☐ Unacceptable ☐

Additional Comments: Use back of form or attach document if necessary.

(Comments are mandatory for an overall rating of Needs Improvement or Unacceptable and for improvements needed on any of the individual topics.)

*Must improve on interpretation of Drug Combination and extrapolation to prior times.*

Evaluated by: T. Davidson

Date of evaluation: 9-16-09

Review and feedback given by Manager:

Manager's signature: [Signature]

Witness's signature: F. Gualc

Date:

# Harris County Institute of Forensic Sciences

## COURT TESTIMONY EVALUATION

Witness name: Dr. Gualde Fessework

Date of testimony: Nov. 10, 2010

Lab Case No.: JAJ-09-009234

Called as witness for: Prosecution ☒ Defense ☐

Evaluation Method: Direct Observation ☒; Telephone Interview ☐

If telephone: Attorney's name:

Phone No.:

(For telephone interviews contact the attorney who subpoenaed the witness for court.)

	Rating Scale	Outstanding	Good	Acceptable	Needs Improvement	Unacceptable	Not Applicable
1	The witness was prepared for court.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	The witness did not have to refer to the case file excessively to answer the questions.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	The witness' appearance was suitable for court. (Professional business attire)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	The witness spoke clearly and distinctly.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	The witness answered questions without volunteering any unnecessary information.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	The witness answered questions directly and objectively for the prosecution.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	The witness answered questions directly and objectively for the defense.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	The witness' overall demeanor was professional.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	The witness exhibited appropriate knowledge of his/her technical subject.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	The witness testified within limits of the report.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	The witness explained technical procedures with terminology the jury could understand.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	The witness maintained composure under cross-examination.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	If visual aids were utilized, they were professional in appearance and an effective means of educating the jury.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Additional Comments:

Evaluated by: Catherine Evans

Date of evaluation: February 21, 2011

Review and feedback by Manager:

Manager's signature: A. R. [Signature]

Witness's signature: F. Gualde

Date: 2/28/11

Quality Assurance Review: Cynthia Young

Date of Review: 2/28/11

# Harris County Institute of Forensic Sciences

## COURT TESTIMONY EVALUATION

Witness name: Dr. Gualt

Date of testimony: 5-18-11

Lab Case No.: J4J 01-009853

Called as witness for: Prosecution ☒ Defense ☐

Evaluation Method: Direct Observation ☒ Telephone Interview ☐

If telephone: Attorney's name:

Phone No.:

(For telephone interviews contact the attorney who subpoenaed the witness for court.)

	Rating Scale	Outstanding	Good	Acceptable	Needs Improvement	Unacceptable	Not Applicable
1	The witness was prepared for court.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	The witness did not have to refer to the case file excessively to answer the questions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	The witness' appearance was suitable for court. (Professional business attire)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	The witness spoke clearly and distinctly.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	The witness answered questions without volunteering any unnecessary information.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	The witness answered questions directly and objectively for the prosecution.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	The witness answered questions directly and objectively for the defense.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	The witness' overall demeanor was professional.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	The witness exhibited appropriate knowledge of his/her technical subject.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	The witness testified within limits of the report.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	The witness explained technical procedures with terminology the jury could understand.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	The witness maintained composure under cross-examination.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	If visual aids were utilized, they were professional in appearance and an effective means of educating the jury.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Additional Comments: The Jury really liked Dr. Gualt. One thing, please don't mention animal toxicology as much.

Evaluated by:

Date of evaluation:

Review and feedback by Manager:

Manager's signature: A. G. Witness's signature: F. Gualt Date: 5/20/11

Quality Assurance Review: Cynthia Young Date of Review: 5/20/11



**Young, Cynthia (IFS)**

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**From:** Wu, Eugene (HCDA)  
**Sent:** Thursday, May 19, 2011 5:05 PM  
**To:** Young, Cynthia (IFS)  
**Subject:** FW:  
**Attachments:** [Untitled].pdf

Please see attached

-----Original Message-----

**From:** [Color MisdSouth@dao.hctx.net](mailto:Color MisdSouth@dao.hctx.net) [<mailto:Color MisdSouth@dao.hctx.net>]  
**Sent:** Thursday, May 19, 2011 5:04 PM  
**To:** Wu, Eugene  
**Subject:**

Please open the attached document. This document was digitally sent to you using an HP Digital Sending device.

# Harris County Institute of Forensic Sciences COURT TESTIMONY EVALUATION

10:03-1048

Witness name: Fessenden G. Gual

Date of testimony: 1/4/12

Lab Case No.: JAS-10-7345

Called as witness for: ☒ Prosecution ☒ Defense

Evaluation Method: Direct Observation ☒ Telephone Interview ☐

If telephone: Attorney's name: LAWRENCE WILSON

Phone No.: 713-659-5200

(For telephone interviews contact the attorney who subpoenaed the witness for court.)

	Rating Scale	Outstanding	Good	Acceptable	Needs Improvement	Unacceptable	Not Applicable
1	The witness was prepared for court.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	The witness did not have to refer to the case file excessively to answer the questions.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	The witness' appearance was suitable for court. (Professional business attire)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	The witness spoke clearly and distinctly.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	The witness answered questions without volunteering any unnecessary information.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	The witness answered questions directly and objectively for the prosecution.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	The witness answered questions directly and objectively for the defense.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	The witness' overall demeanor was professional.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	The witness exhibited appropriate knowledge of his/her technical subject.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	The witness testified within limits of the report.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	The witness explained technical procedures with terminology the jury could understand.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	The witness maintained composure under cross-examination.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	If visual aids were utilized, they were professional in appearance and an effective means of educating the jury.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Additional Comments:

Evaluated by: Laurence Wilson  
Review and feedback by Manager:

Date of evaluation: 1-19-12

Manager's signature: [Signature]

Witness's signature: F. Gual

Date: 1/19/12

Quality Assurance Review: [Signature]

Date of Review: 2/8/12

# Harris County Institute of Forensic Sciences

## COURT TESTIMONY EVALUATION

Witness name: Dr. Guale

Date of testimony: 1/19/2012

Lab Case No.:

JAS-10-7375

Called as witness for: Prosecution ☒ Defense ☐

Evaluation Method: Direct Observation ☒; Telephone Interview ☐

If telephone: Attorney's name: Denise Adkison-Brown Phone No.:

(For telephone interviews contact the attorney who subpoenaed the witness for court.)

	Rating Scale	Outstanding	Good	Acceptable	Needs Improvement	Unacceptable	Not Applicable
1	The witness was prepared for court.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	The witness did not have to refer to the case file excessively to answer the questions.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	The witness' appearance was suitable for court. (Professional business attire)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	The witness spoke clearly and distinctly.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	The witness answered questions without volunteering any unnecessary information.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	The witness answered questions directly and objectively for the prosecution.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	The witness answered questions directly and objectively for the defense.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	The witness' overall demeanor was professional.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	The witness exhibited appropriate knowledge of his/her technical subject.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	The witness testified within limits of the report.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	The witness explained technical procedures with terminology the jury could understand.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	The witness maintained composure under cross-examination.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	If visual aids were utilized, they were professional in appearance and an effective means of educating the jury.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Additional Comments: Thank you for your time.

Evaluated by: [Signature]

Date of evaluation: 1/19/2012

Review and feedback by Manager:

Manager's signature: [Signature]

Witness's signature: [Signature] Date: 1/19/12

Quality Assurance Review: [Signature] Date of Review: 2/8/12

# Harris County Institute of Forensic Sciences

## COURT TESTIMONY EVALUATION

Witness name: Fassessework Guala

Date of testimony: 10-31-2012

Lab Case No.: ML10-1351

Called as witness for: Prosecution ☒ Defense ☐

Evaluation Method: Direct Observation ☒ Telephone Interview ☐

If telephone: Attorney's name: Sherry L. Robinson Phone No.: 281-344-4470  
(For telephone interviews contact the attorney who subpoenaed the witness for court.)

	Rating Scale	Outstanding	Good	Acceptable	Needs Improvement	Unacceptable	Not Applicable
1	The witness was prepared for court.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	The witness did not have to refer to the case file excessively to answer the questions.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	The witness' appearance was suitable for court.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	The witness spoke clearly and distinctly.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	The witness answered questions without volunteering any unnecessary information.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	The witness answered questions directly and objectively for the prosecution.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	The witness answered questions directly and objectively for the defense.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	The witness' overall demeanor was professional.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	The witness exhibited appropriate knowledge of proper courtroom conduct.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	The witness testified within limits of the report.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	The witness explained technical procedures with accuracy and clarity.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	The witness maintained composure under cross-examination.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	If visual aids were utilized, they were professional in appearance and as effective as possible in assisting the jury.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Additional Comments:

Evaluated by:

Date of evaluation:

Review and feedback by Manager:

Manager's signature: [Signature]

Witness's signature: F Guala

Date: 12-18-12

Quality Assurance Review: [Signature]

Date of Review: 12/21/12

Form #: QAF08.006  
Date: 0610

Rev.: 6

Procedure #: QP08.0022  
Approver: Cynthia Young

# Harris County Institute of Forensic Sciences

## COURT TESTIMONY EVALUATION

Witness name: Dr. Fessessework Guale

Date of testimony: 3/21/13

Lab Case No.: IFS12-06340

Called as witness for: Prosecution ☒ Defense ☐

Evaluation Method: Direct Observation ☒; Telephone Interview ☐

If telephone: Attorney's name: Cordt Akers

Phone No.: 713 755 5853

(For telephone interviews contact the attorney who subpoenaed the witness for court.)

	Rating Scale	Outstanding	Good	Acceptable	Needs Improvement	Unacceptable	Not Applicable
1	The witness was prepared for court.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	The witness did not have to refer to the case file excessively to answer the questions.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	The witness' appearance was suitable for court. (Professional business attire)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	The witness spoke clearly and distinctly.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	The witness answered questions without volunteering any unnecessary information.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	The witness answered questions directly and objectively for the prosecution.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	The witness answered questions directly and objectively for the defense.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	The witness' overall demeanor was professional.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	The witness exhibited appropriate knowledge of his/her technical subject.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	The witness testified within limits of the report.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	The witness explained technical procedures with terminology the jury could understand.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	The witness maintained composure under cross-examination.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	If visual aids were utilized, they were professional in appearance and an effective means of educating the jury.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Additional Comments:

Dr. Guale did an excellent job. Answered questions clearly, precisely, and stood her ground on hard questioning from opposing counsel. I could not have asked for a more professional witness.

Evaluated by: Cordt Akers

Date of evaluation: 3/21/13

Review and feedback by Manager: *Farkhe Davis*

Manager's signature: *[Signature]* 8/14/13

Witness's signature: *F Guale* Date: *8/14/13*

Quality Assurance Review: *Cynthia Young* Date of Review: *8/14/13*



# Harris County Institute of Forensic Sciences

## COURT TESTIMONY EVALUATION

Witness name: Fessessework Guale

Date of testimony: 1/14/15

Lab Case No.: IFS13-12745

Called as witness for: Prosecution ☒ Defense ☐

Evaluation Method: Direct Observation ☐; Telephone Interview ☐

If telephone: Attorney's name:

Phone No.:

(For telephone interviews contact the attorney who subpoenaed the witness for court.)

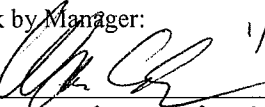
	Rating Scale	Outstanding	Good	Acceptable	Needs Improvement	Unacceptable	Not Applicable
1	The witness was prepared for court.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	The witness did not have to refer to the case file excessively to answer the questions.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	The witness' appearance was suitable for court. (Professional business attire)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	The witness spoke clearly and distinctly.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	The witness answered questions without volunteering any unnecessary information.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	The witness answered questions directly and objectively for the prosecution.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	The witness answered questions directly and objectively for the defense.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	The witness' overall demeanor was professional.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	The witness exhibited appropriate knowledge of his/her technical subject.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	The witness testified within limits of the report.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	The witness explained technical procedures with terminology the jury could understand.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	The witness maintained composure under cross-examination.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	If visual aids were utilized, they were professional in appearance and an effective means of educating the jury.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Additional Comments: Great job by Dr. Guale. The jury found her testimony very credible and compelling.

Evaluated by: Stephany Urrea


Date of evaluation: 1/16/2015

Review and feedback by Manager:

Manager's signature: 

Witness's signature: F. Guale

Date: 1/26/15

Quality Assurance Review: 

Date of Review: 1/26/15

# Harris County Institute of Forensic Sciences

## COURT TESTIMONY EVALUATION

Witness name: Dr. Fessessework Guale

Date of testimony: 02/02/15 *incorrect year 1/6 02/04/15* Lab Case No.: 14-09330

Called as witness for: Prosecution ☒ Defense ☐

Evaluation Method: Direct Observation ☒; Telephone Interview ☐

If telephone: Attorney's name: JAMES MURPHY Phone No.: 713-755-0236

(For telephone interviews contact the attorney who subpoenaed the witness for court.)

	Rating Scale	Outstanding	Good	Acceptable	Needs Improvement	Unacceptable	Not Applicable
1	The witness was prepared for court.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	The witness did not have to refer to the case file excessively to answer the questions.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	The witness' appearance was suitable for court. (Professional business attire)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	The witness spoke clearly and distinctly.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	The witness answered questions without volunteering any unnecessary information.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	The witness answered questions directly and objectively for the prosecution.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	The witness answered questions directly and objectively for the defense.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	The witness' overall demeanor was professional.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	The witness exhibited appropriate knowledge of his/her technical subject.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	The witness testified within limits of the report.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	The witness explained technical procedures with terminology the jury could understand.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	The witness maintained composure under cross-examination.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	If visual aids were utilized, they were professional in appearance and an effective means of educating the jury.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Additional Comments: Dr. Guale was an outstanding professional who was extremely knowledgeable about the subject matter. She presented with integrity, polish, and poise.

Evaluated by: JAMES MURPHY

Date of evaluation: 2/4/15

Review and feedback by Manager:

Manager's signature: *[Signature]*

Witness's signature: *F. Guale*

Date: 2/4/15

Quality Assurance Review: *Cynthia Young*

Date of Review: 2/4/15

# Harris County Institute of Forensic Sciences

## COURT TESTIMONY EVALUATION

Witness name: Dr. Guale

Date of testimony: 02/11/15

Lab Case No.: IFS13-06854

Called as witness for: Prosecution ☒ Defense ☐

Evaluation Method: Direct Observation ☒; Telephone Interview ☐

If telephone: Attorney's name:

Phone No.:

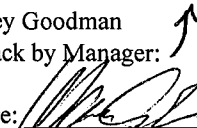
(For telephone interviews contact the attorney who subpoenaed the witness for court.)

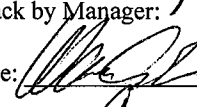
	Rating Scale	Outstanding	Good	Acceptable	Needs Improvement	Unacceptable	Not Applicable
1	The witness was prepared for court.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	The witness did not have to refer to the case file excessively to answer the questions.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	The witness' appearance was suitable for court. (Professional business attire)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	The witness spoke clearly and distinctly.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	The witness answered questions without volunteering any unnecessary information.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	The witness answered questions directly and objectively for the prosecution.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	The witness answered questions directly and objectively for the defense.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	The witness' overall demeanor was professional.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	The witness exhibited appropriate knowledge of his/her technical subject.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	The witness testified within limits of the report.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	The witness explained technical procedures with terminology the jury could understand.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	The witness maintained composure under cross-examination.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	If visual aids were utilized, they were professional in appearance and an effective means of educating the jury.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Additional Comments: Dr. Guale states that there was significant questioning by Defense regarding a publication linking COVID-19 with H1N1 pandemic under certain circumstances. She states she answered truthfully, but the outcome of the trial was a hung jury.

Evaluated by: Casey Goodman

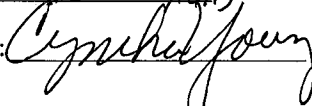
Date of evaluation: 02/12/15

Review and feedback by Manager: 

Manager's signature: 

Witness's signature: F - Guale

Date: 2/16/15

Quality Assurance Review: 

Date of Review: 3/5/15

# Harris County Institute of Forensic Sciences

## COURT TESTIMONY EVALUATION

Witness name: Dr. Fessesswork Guale

Date of testimony: June 10, 2015

Lab Case No.: IFS14-11329

Called as witness for: Prosecution ☒ Defense ☐

Evaluation Method: Direct Observation ☒; Telephone Interview ☐

If telephone: Attorney's name:

Phone No.:

(For telephone interviews contact the attorney who subpoenaed the witness for court.)

	Rating Scale	Outstanding	Good	Acceptable	Needs Improvement	Unacceptable	Not Applicable
1	The witness was prepared for court.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	The witness did not have to refer to the case file excessively to answer the questions.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	The witness' appearance was suitable for court. (Professional business attire)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	The witness spoke clearly and distinctly.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	The witness answered questions without volunteering any unnecessary information.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	The witness answered questions directly and objectively for the prosecution.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	The witness answered questions directly and objectively for the defense.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	The witness' overall demeanor was professional.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	The witness exhibited appropriate knowledge of his/her technical subject.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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11	The witness explained technical procedures with terminology the jury could understand.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	The witness maintained composure under cross-examination.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	If visual aids were utilized, they were professional in appearance and an effective means of educating the jury.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Additional Comments:

Dr. Guale did an amazing job with her testimony. During cross-examination by defense counsel, however, you could tell that she was getting somewhat agitated by wording of questions. Dr. Guale remained composed, but did seem somewhat defensive during a couple of hypothetical questions.

Evaluated by: Twyanette Wallace

Date of evaluation: June 23, 2015

Review and feedback by Manager:

Manager's signature: *[Signature]*

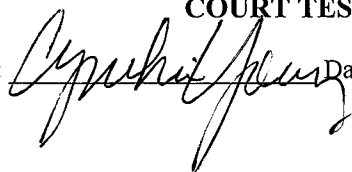
Witness's signature: *F. Guale*

Date: *2/8/16*

*Very good, however*  
*Be mindful to not lose composure under cross-examination, even with repetitive or hypothetical questions.*

Harris County Institute of Forensic Sciences  
COURT TESTIMONY EVALUATION

Quality Assurance Review:



Date of Review:

2/8/16





## **Harris County Institute of Forensic Sciences**

Date: 8/26/16

To: Dr. Fessessework Guale  
Analytical Operations Manager

From: Dr. Teresa Gray  
Chief Toxicologist

Re: Performance Improvement Plan – Testimony-Related

### Situation

1. Recently, concerns of unclear testimony have been raised by members of the court and brought to our attention. As follow up to these concerns, I directly observed your recent testimonies and noted subtle inaccuracies, contradictions and unclear explanations, themes that were discussed during your recent performance feedback

### Concern

As a representative of the Harris County Institute of Forensic Sciences, you must effectively and professionally communicate with pathologists, attorneys and law enforcement officers, providing nuanced opinions and clear and accurate explanations. Failure to consistently perform at this caliber is unacceptable. Immediate and sustained improvement is required through active participation in this performance improvement plan.

Refusal to participate in the performance improvement plan and demonstrate sustained improvement may result in disciplinary action, up to and including termination.

### Performance Improvement Plan

#### 1. Employee Action

- You will not be permitted to provide expert testimony until further notice. Your assigned responsibilities will be adjusted accordingly. The following areas must be improved:
  - Your communication, including testimony, must be clear to the intended audience. Confusion or misunderstanding must be minimal. You must consider the knowledge level of the target audience and adjust your terminology and approach accordingly.
  - Communication, including testimony, must be precise and accurate.
  - Your communication, including testimony, must be more nuanced. “All or none” positions should be avoided when possible.

- Communication, including testimony, should be concise when possible and directly relate to the question asked. If you do not understand the question asked, you must seek clarification before answering.
- Communication with laboratory staff and customers must be professional and respectful.
- To facilitate this improvement, you must participate in any public speaking exercise deemed necessary by me or laboratory management. At a minimum, your public speaking exercises shall include:
  - Stage 1: General public speaking (non-linear thinking)
    - You shall give a 5 minute presentation on a topic of your choice, preferably non-scientific.
    - Depending on your performance of the first attempt, a second training session may be recommended.
  - Stage 2: General public speaking (planned linear thinking)
    - You shall give a 5 minute presentation on a non-scientific topic of your choice that is procedural (i.e. how to tie shoes, how to bake cookies)
    - The setting shall be informal.
    - Depending on your performance of the first attempt, a second training session may be recommended.
  - Stage 3: General public speaking (unplanned linear thinking)
    - You shall give a 5 minute presentation on a non-scientific topic that I choose. The topic will once again be procedural.
    - The setting shall be informal.
    - Depending on your performance of the first attempt, a second training session may be recommended.
  - Stage 4: Scientific Presentation
    - You shall present a lecture to me.
  - Stage 5: Voir dire practice
    - You shall practice voir dire questions that would be expected in a real case.
  - Stage 6: Mock trial practice (non-adversarial)
  - Stage 7: Mock trial (adversarial)
- You will attend the weekly case conference every other week. I will observe your interactions with pathologists and provide feedback after each conference.
- After resuming testimony, your testimony will be observed. You must notify me when you expect to go to court so that someone can go with you. You shall review your testimony with the observer when you return from court.

2. Manager Action

- We shall discuss your public speaking exercises, testimony if applicable, and interactions with pathologists/staff as necessary. We will discuss which areas went well and formulate strategies to improve on weak areas.
- After three months, I will re-evaluate your performance. If you have demonstrated sustained improvement, this plan will be concluded; otherwise, an alternative plan of action will be taken.

Signed by Employee: Fessesework Guale Date: 8/30/16  
Dr. Fessesework Guale  
Analytical Operations Manager

Prepared by Manager: Teresa Gray Date: 8/30/16  
Dr. Teresa Gray  
Chief Toxicologist

Witnessed by: Warren Samms Date: 8/30/16  
Dr. Warren Samms  
Director of Toxicology and Chemistry

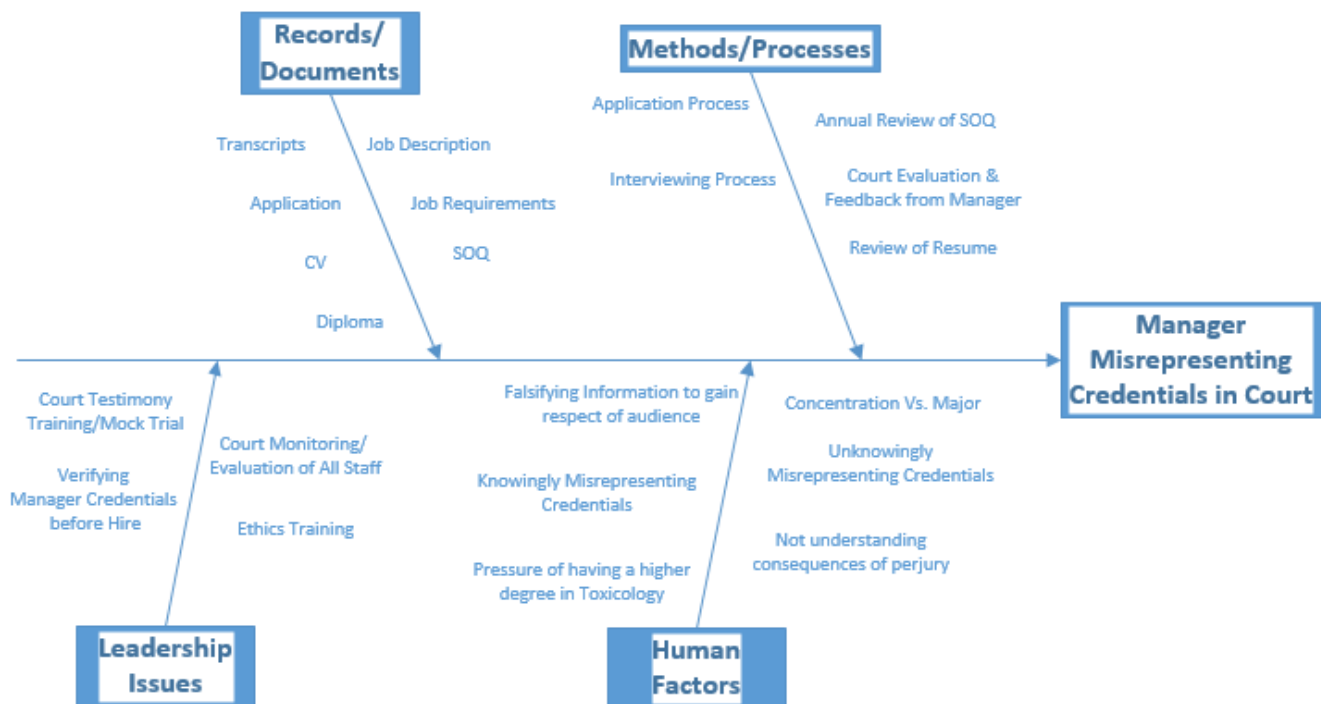
### Define Event:

In late August 2016 it was discovered the Analytical Operations Manager (AOM) was misstating the title of her Master of Science degree during court testimony.

RCA Team- Quality Director, Quality Manager, QA/QC Project Coordinators, Director of Toxicology and Chemistry, and Chief Toxicologist.

Triggers- Unclear testimony regarding the nature of her degrees led to management review of provided documentation and past court transcripts, as well as direct observation of testimony.

### Find Possible Causes:



See [summary](#) that overlaps Defining Event & Finding Potential Causes for CAR.

## Find the Root Cause:

### Records/Documents

Were all the records containing her credentials consistent with each other?

→ NO. The major stated on her **transcript** and **diploma** did not match what was written on her job **application, CV, or SOQ**.

Did she try to hide her true major by withholding documents?

→ NO. The diploma was in her Q-Pulse People file. If she submitted her diploma, she was not hiding her true major.

Did she misrepresent credentials in order to qualify for her position?

→ NO. She met the criteria of her initial and ultimate **job description** and was qualified to perform her **required duties**. There was no need for her to misrepresent credentials in order to gain employment or a promotion.

### Methods/Processes

Were her credentials verified at the time of hiring?

→ UNKNOWN. The **application process** did not require official transcripts to be submitted by applicants in 2006. **(A) Interviews** varied; it was at the discretion of the hiring manager to verify credentials. Her hiring manager is no longer employed by the office.

Were her **CV** and **SOQ** checked for accuracy?

→ NO. Staff CVs are currently not checked. SOQs were often reviewed for format and consistency with duties by QA personnel; however, up until this point they were normally not checked against diplomas or transcripts. **(B)** A misstated degree would not have been caught unless someone compared the SOQ against the diploma or transcript.

Was there a lack of **court monitoring and evaluation**?

→ MAYBE. Toxicology staff, particularly managers, were historically evaluated by attorneys or other court parties, not crime lab personnel. **(C)** Earlier monitoring would have caught the misrepresentation on the stand only if the manager was aware of her degree as stated in her diploma.

### Leadership Issues

Were opportunities missed early on to **verify her credentials** or **monitor her court testimony**?

→ UNKNOWN. Again, it is unclear if her hiring manager verified her credentials or observed her testify in court. If her hiring manager was aware of the discrepancy between her application and SOQ and did not take action, then it is likely the hiring manager would not have acted if she heard her misstate her credentials on the stand.



Did the agency fail to provide **testimony training**?

→NO. Accreditation mandates training for staff in forensic science and criminal and civil law procedure. The AOM attended general forensic science knowledge and general court testimony training sessions throughout her career at IFS. Although the AOM had participated in a **mock trial** during her first year of employment, she did not complete a mock trial when the scope of her testimony changed. It remains unknown if a mock trial would have led to the issue being caught sooner.

Did the agency fail to provide **ethics training**?

→NO. Accreditation mandates ethics training for laboratory personnel. The AOM had attended multiple ethics training sessions throughout her career at IFS.

### Human Factors

Did she confuse the concepts of **course concentration** and **major**?

→NO. Neither the educational institution nor her transcript provided evidence that her program offered a toxicology concentration or toxicology emphasis. Nevertheless, the AOM felt strongly that her toxicology courses and toxicology research meant that her degree was “in toxicology.”

Was there **pressure** from staff or agency management to possess a higher degree in “toxicology”?

→NO. The AOM possessed multiple post-graduate degrees. She was in a director-level position despite the fact that none of them contained the word “toxicology.”

Was the misrepresentation of her credentials done so maliciously?

→NO. The AOM did not have a history of falsifying results or records. She was **not known to intentionally misrepresent** facts.

Did the AOM wish to curtail the process of being qualified as an expert in toxicology?

→YES. She was uncomfortable with the adversarial nature of the courtroom. When attorneys **qualify an expert witness** for the jury, a series of questions are asked about the witness’s education, training, and experience. The more relevant one’s education, training, and experience is to their field of expertise, the faster the attorney can qualify the witness. Irrelevant degrees may prompt additional questions from an attorney.

Did she understand the consequences her actions would have on the cases and her career?

→NO. The AOM considered the conflation of her true degree as innocuous, and that others would find it innocuous, as well. The associated consequences, up to and including **perjury**, were not on her radar, and therefore, they were not a deterrent. Even when confronted with her wrongdoing, she did not fully appreciate the consequences her actions had within the criminal justice system.

See [summary](#) for solutions and action (Corrective Action & Preventative Action)

Preventative changes that were already implemented after the AOM was hired:

- (A) Currently, lab policy mandates official transcripts and/or diplomas to be checked before hiring.

Preventative changes that were implemented after the incident:

- (B) Lab policy has been changed to require records to be submitted with every SOQ and CV revision.
- (C) Re-emphasized existing IFS testimony monitoring policy to stress the importance of managers receiving direct testimony observation by IFS personnel.

**Measure and Assess:**

- 1) Further ethics discussions with the staff showed all understood the severity and ramifications of misrepresenting credentials.
- 2) SOQ reviews showed the need to request supporting records from current staff. All SOQs and CVs have been updated with supporting records.
- 3) Closed RCA October 21, 2016

Employee name: Ferresework Guala

## TRAINING AGREEMENT

EMPLOYEE: Fessenden, Gabe DATE: 2/19/12

☐ New Hire  
☐ New/Revised Procedure  
☐ Retraining for Remedial Purposes  
☐ Verification of Employees Performance

TRAINER: JAN Michael DATE: 09/2013

COMMENTS:


The employee can perform the indicated procedures with minimal supervision.

ASSESSMENT COMPLETED BY: Shellyn Beard DATE: 9/20/13

☐ Competency Test  
☐ Proficiency Test  
☐ Oral Exam

*evaluations*

MANAGER:



DATE:

9/26/13

**\*TRAINING METHOD:**

R = Read Procedural Steps

O = Observe demonstration

P = Perform with Supervision

PM = Perform without Supervision

# *Certificate of Attendance*

is hereby granted to

**FESSESSEWORK GUALE**

To certify attendance at the training class:

**"Ethics Training"**

a 2.0 hour class held on December 9, 2009

*Human Resources & Risk Management*



Debbie S. Chapman, PHR  
*Training Administrator*



# *Certificate of Completion*

This certifies that

**Fessework Gual**

Completed the


**Jon S. Byrd, M.S.**


**Confirmation Bias, Ethics, and Mistakes in Forensics  
Forensic Ethics Seminar**

**May 12, 2010**

Sponsored by the

**Harris County Institute of Forensic Sciences**

  
Ashraf Mozayani, Ph.D., D-ABFT  
Crime Laboratory Director

  
Luis A. Sanchez, M.D.  
Chief Medical Examiner

# Fesseseswork Guale

Has attended and met the requirements of the on-line course:

## **Expert Testimony for the Prosecutor and Scientist**

On

1/13/2012

This course was provided with funding from National Institute of Justice

This course provided one contact hour



Certificate Number: 1096941996

For further information: [www.rti.org/forensiced](http://www.rti.org/forensiced)

# Fessessework Guale

Has attended and met the requirements of the on-line course:

## **Expert Testimony for the Prosecutor and Scientist II**

On

**1/26/2012**

This course was provided with funding from National Institute of Justice

This course provided one contact hour



Certificate Number: 1097341629

For further information: [www.rti.org/forensiced](http://www.rti.org/forensiced)

Luis A. Sanchez, M.D.  
Chief Medical Examiner



Main: (713) 796-9292  
Fax: (713) 796-6844

## Harris County Institute of Forensic Sciences

### Expert Testimony Training – Logistics MEETING TITLE

9/20/12  
DATE

1st floor classroom  
LOCATION

1:30 pm – 2:00 pm  
TIME

	NAME (Typed or Printed)	SIGNATURE
1	Dr. Ashraf Mozayani	
2	Andre Salazar	
3	Dr. Anna Kelly	<i>Anna Kelly</i>
4	Ashlyn Beard	<i>Ashlyn Beard</i>
5	Dr. Charlotte Baker	
6	Collin Clay	<i>Collin Clay</i>
7	Crystal Arndt	<i>Crystal Arndt</i>
8	Dana Mike	
9	DeShaun Alexander	
10	Dr. Fessessework Guale	<i>F-Guale</i>
11	Fredria Shaw	
12	Fu Tian	
13	Glenna Thomas	<i>Glenna Thomas</i>
14	Dr. Hsin-Hung Chen	<i>Dr. Hsin-Hung Chen</i>
15	Jameaker Dumas	<i>Jameaker Dumas</i>
16	James Sailors	
17	Dr. Jeff Walterscheid	<i>Jeff Walterscheid</i>
18	Josie Hollowell	<i>Josie Hollowell</i>
19	Linda Alvarado	<i>Linda Alvarado</i>
20	Linda Nickell	

July 18, 2012

Page 2 of 2

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	NAME (Typed or Printed)	SIGNATURE
21	Meagan Ocanas	Meagan Ocanas
22	Paola Velasco	
23	Patti Small	Patti Small
24	Dr. Samuel Wyllie	
25	Angela Mwadime	
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**Luis A. Sanchez, M.D.**  
Chief Medical Examiner



Main: (713) 796-9292  
Fax: (713) 796-6844

## Harris County Institute of Forensic Sciences

### Expert Testimony Training – Analogies MEETING TITLE

9/20/12  
DATE

1st floor classroom  
LOCATION

2:00 pm – 2:30 pm  
TIME

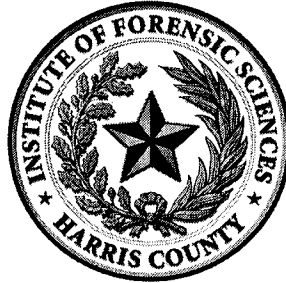
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1	Dr. Ashraf Mozayani	
2	Andre Salazar	
3	Dr. Anna Kelly	
4	Ashlyn Beard	Ashlyn Beard
5	Dr. Charlotte Baker	Charlotte Baker
6	Collin Clay	Collin Clay
7	Crystal Arndt	Crystal Arndt
8	Dana Mike	
9	DeShaun Alexander	
10	Dr. Fessessework Guale	F-Guale
11	Fredria Shaw	
12	Fu Tian	
13	Glenna Thomas	Glenna Thomas
14	Dr. Hsin-Hung Chen	Dr. Hsin-Hung Chen
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July 18, 2012

Page 2 of 2

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**AGENDA – General Knowledge of Forensic Science**  
**Wednesday, August 21, 2013**

- **8:30am – Introduction (Ms. Pierce)**
- **9:00am – Drug Chemistry (Ms. McClain)**
  
- **BREAK**
  
- **9:45am – Toxicology (Dr. Waltersheid)**
- **10:15am – Firearms (Mr. Baldwin)**
  
- **BREAK**
  
- **11:00am – Trace (Dr. Davis)**
- **11:30am- Serology/DNA (Ms. Freeman)**


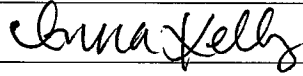
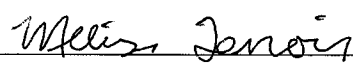
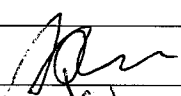
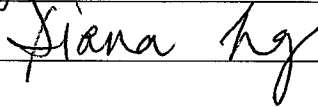
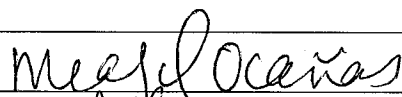
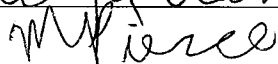
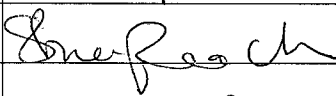


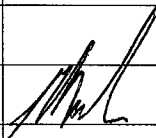
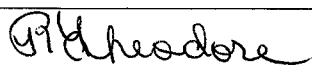
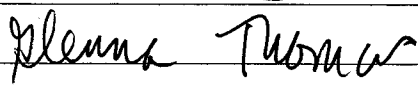
**Luis A. Sanchez, M.D.**  
Chief Medical Examiner

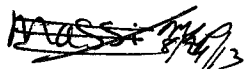


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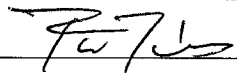
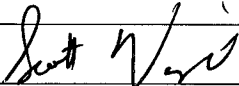
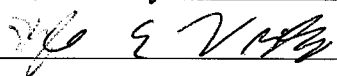
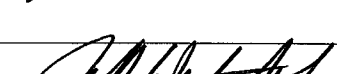

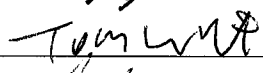
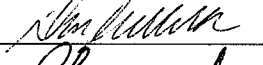


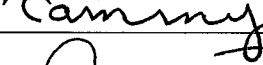
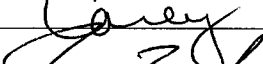
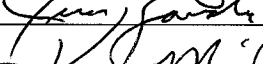
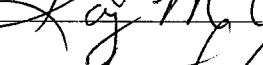
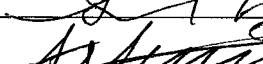

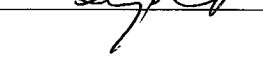

## Harris County Institute of Forensic Sciences

Crime Laboratory Staff – Mandatory Meeting General Forensic Science Training 1 <sup>st</sup> Floor Classroom 8:30 am – 11:30 am		
	Lab Personnel	Signature
1.	Aguilar de Alba, Ana Karina	
2.	Alexander, DeShaun	<i>DeShaun Alexander</i>
3.	Alvarado, Linda	<i>Linda Alvarado</i>
4.	Arndt, Crystal	<i>Crystal Arndt</i>
5.	Baker, Charlotte	
6.	Baldwin, Robert	<i>Robert Baldwin</i>
7.	Beard, Ashlyn	<i>Ashlyn Beard</i>
8.	Binder, LaToya	<i>LaToya Binder</i>
9.	Bruns, Bradley	
10.	Cao, Tuan	<i>Tuan Cao</i>
11.	Cavalier, Dimika	<i>Dimika Cavalier</i>
12.	Chen, Michael	
13.	Clay, Collin	<i>Collin Clay</i>
14.	Crandell, Katelyn	<i>Katelyn Crandell</i>
15.	Davis, William	<i>William Davis</i>
16.	Disiere, Brittany	<i>Brittany Disiere</i>
17.	Dumas, Jameaker	<i>Jameaker Dumas</i>
18.	Dupre, Jill	<i>Jill Dupre</i>
19.	Ellis, Michelle	
20.	Gaswint, Jason	<i>Jason Gaswint</i>
21.	Guale, Fessessework	<i>F. Guale</i>
22.	Hohler, Melinda K. Wilson	<i>Melinda K. Wilson Hohler</i>
23.	Hollowell, Josie	<i>Josie Hollowell</i>
	Faulkner, Anthony	<i>Anthony Faulkner</i>

<b>Crime Laboratory Staff – Mandatory Meeting</b> <b>General Forensic Science Training</b> <b>1<sup>st</sup> Floor Classroom</b> <b>8:30 am – 11:30 am</b>		
	<b>Lab Personnel</b>	<b>Signature</b>
24.	Jiang, Julia	
25.	Kelly, Anna	
26.	LaPorte, Dawn	
27.	Lenoir, Melissa	
28.	McClain, Kay	
29.	Mike, Dana	
30.	Mwadime, Angela R.	
31.	Ng, Diana	
32.	Nguyen, Khanh	
33.	Nickell, Linda	
34.	Ocanas, Meagan	
35.	Pierce, Michal	
36.	Reach, Shrey	
37.	Rizvi, Shaheen	
38.	Sailors, James	
39.	Salazar, Andre	
40.	Samms, Warren	
41.	Santillan, Abel	
42.	Schroeder, Jason L.	
43.	Shahreza, Shahriar	
44.	Shaw, Fredria	
45.	Small, Patricia	
46.	Theodore, Richele	
47.	Thomas, Glenna	





Crime Laboratory Staff – Mandatory Meeting General Forensic Science Training 1 <sup>st</sup> Floor Classroom 8:30 am – 11:30 am	
Lab Personnel	Signature
48. Tian, Fu	
49. Turner, Jennifer	
50. Vajdos, Scott	
51. Vircks, Kyle Edward	
52. Walters, Kacie	
53. Walterscheid, Jeffrey	
54. White, Thomas	
55. Williams, Donna	
56. Williams, Sharonda	
57. Young, Cynthia	
58. Lyons, Tammy	
59. Muhlhauser, Carey	
60. Jesse Zavala	
61. Kay McClain	
62. Samuel Wolfe	
63. Autumn Massiello	
64. ROBIN FREEMAN	
65.	
66.	
67.	
68.	
69.	
70.	
71.	

# **Fessessework Guale**

Has attended and met the requirements of the on-line course:

## **Answering the NAS: The Ethics of Leadership and the Leadership of Ethics**

On

09/4/2013

This course was provided with funding from National Institute of Justice

This course provided one contact hour



Certificate Number: 1131887473

For further information: [www.rti.org/forensiced](http://www.rti.org/forensiced)

# *Certificate of Completion*

This certifies that

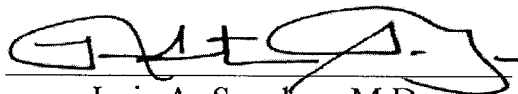
***FESSESSEWORK GUALE***

Has Participated in

***“Expert Witness Testimony Workshop”***

Presented at the Harris County Institute of Forensic Sciences

**November 7 & 8, 2013**



Luis A. Sanchez, M.D.  
Chief Medical Examiner

# CERTIFICATE OF ATTENDANCE

THIS CERTIFIES THAT

Fessessework Guale

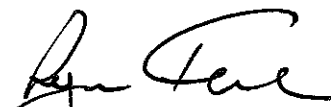
has successfully completed the required 1.5 hour

## ETHICS WORKSHOP

Given this 20<sup>th</sup> day of May, 2014



Michal Pierce, M.S.  
Quality Director



Roger Kahn, Ph.D.  
Crime Laboratory Director



# CERTIFICATE *of* COMPLETION

Is hereby awarded to

**DR. FESSESSEWORK GUALE**

for completing the

**GENERAL KNOWLEDGE OF FORENSIC SCIENCE TRAINING**

A 1.0 hour training session was completed on Thursday, April 2, 2015.

Presented by  
Quality Management/Training Development



---

**Michal L. Pierce, MS, F-ABC**

Quality Director  
Harris County, Texas



HARRIS COUNTY  
**INSTITUTE** SCIENCE.  
SERVICE.  
**OF FORENSIC SCIENCES** INTEGRITY.

The Harris County Institute of Forensic Sciences is accredited by the National Association of Medical Examiners, American Society of Crime Laboratory Directors/Laboratory Accreditation Board-*International*, American Board of Forensic Toxicology, Texas Department of Public Safety, Accreditation Council for Graduate Medical Education, and the Texas Medical Association for the Accreditation Council for Continuing Medical Education.



# CERTIFICATE OF ATTENDANCE

THIS CERTIFIES THAT

Fessessework Guale

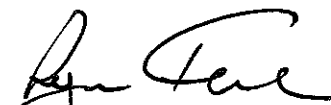
has successfully completed the required 1.5 hour

## ETHICS WORKSHOP

Given this 17th day of August, 2015



Michal Pierce, M.S.  
Quality Director



Roger Kahn, Ph.D.  
Crime Laboratory Director



## Corrective and Preventive Actions Report

Printed on: Tuesday, December 27, 2016

### Details

<b>Number</b> TOX16.03	<b>Status</b> Closed	<b>Owner</b> Gray, Teresa	<b>Raised Date</b> 8/26/2016
<b>Source</b> Crime Laboratory\Forensic Toxicology	<b>Standard</b>		<b>Target Date</b>
<b>Raised By Person</b> Samms, Warren	<b>Severity</b> Level I	<b>Raised Against (Department or Supplier)</b> Crime Laboratory Services\Toxicology	

### Define Problem

<b>Target Date</b>	<b>Owner</b> Pierce, Michal	<b>Closed Date</b> 9/8/2016	<b>Closed By</b> Pierce, Michal
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#### Details

The Toxicology Analytical Operations Manager (AOM) had difficulty explaining her qualifications on the witness stand during a routine line of questioning resulting in an Assistant District Attorney (ADA) expressing concern over her testimony performance. While reviewing the court testimony with the ADA afterward, it was discovered the AOM was misstating the title of her Master of Science degree. The AOM's behavior on the stand appeared to deviate from two established codes of ethics:- The ASCLD/LAB Guiding Principles of Professional Responsibility for Crime Laboratories and Forensic Sciences requires that a forensic expert "accurately represent their education, training, experience, and area of expertise." -The American Board of Forensic Toxicology expects all certificate holders to follow the ABFT Code of Ethics, among which is the requirement to "Perform all professional activities in Forensic Toxicology with honesty and integrity, and refrain from any knowing misrepresentation of their professional qualifications, knowledge and competence, evidence and results of examinations, or other material facts."

### Investigate-Root Cause Analysis

<b>Target Date</b>	<b>Owner</b> Gray, Teresa	<b>Closed Date</b> 9/29/2016	<b>Closed By</b> Pierce, Michal
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#### Details

The Assistant District Attorney was interviewed about the expert witness testimony, as a testimony transcript (which was requested) was not immediately available. Specifically, the employee stated on the stand that she did not receive education or training regarding the effects of alcohol on humans. The employee was then counselled about the feedback obtained, and stated that she interpreted the question as being only within the confines of her formal education, not any subsequent work experience, training, or continuing education. The Chief Toxicologist accompanied the employee to her next court appearances in order to directly observe her testify. Several deficiencies were noted by the Chief Toxicologist. A subsequent review of her credentials revealed that her Master of Science degree was not in "Toxicology", as stated in past court transcripts; rather, it was in "Physiological Science". Furthermore, she stated her degree was in Toxicology on her SOQ, curriculum vitae, and employment application. When the employee was asked about the apparent discrepancy in her testimony about credentials, she stated that she always considered her degree to be "in Toxicology" due to the nature of her coursework and research, despite the fact that her degree and transcript stated otherwise. Accordingly, the root cause was determined to be that the employee felt that the term "Toxicology" better described her course of study, and did not believe that she was misrepresenting her credentials. Further, she failed to recognize the ramifications this discrepancy would have on her professional integrity and within the criminal justice system.

## Determine Action

Target Date	Owner	Closed Date	Closed By
	Gray, Teresa	9/29/2016	Gray, Teresa

### Details

Re-train the employee to communicate her credentials and professional opinions in the most clear and accurate manner possible while on the witness stand.

## Corrective Action

Target Date	Owner	Closed Date	Closed By
	Gray, Teresa	10/10/2016	Gray, Teresa

### Details

-A performance improvement plan (attached) was developed to re-train the employee in expert testimony, with an emphasis in clarity of communication.-The discovery about the misstated degree was disclosed to the Harris County District Attorney's Office. A list of potentially affected cases was generated and submitted to the attorneys.-All three accreditation bodies were notified of the nonconformance.

## Actions

Number	Owner	Target Date	Completed Date
Details	Response		
1	Gray, Teresa	11/30/2016	10/10/2016
Performance Improvement Plan was developed, presented, and signed by the employee on 8/30/16.		Employee resigned on 9/21/16, before completing the P.I.P.	
2	Pierce, Michal	9/6/2016	9/6/2016
The Crime Laboratory Director and Quality Director met with the Belinda Hill, Allison Baimbridge, Terrence Wyndham, and Inger Chandler from the HCDAO on 9/6/16 to discuss the discrepancies noted in the employee's testimony.		The HCDAO issued a notice to the defense bar that same day.	
3	Pierce, Michal	9/9/2016	9/9/2016
The Texas Forensic Science Commission, ASCLD/LAB, and ABFT were notified of the nonconformance via email/electronic submission.		All acknowledged receipt of the disclosure.	

## Preventive Action

Target Date	Owner	Closed Date	Closed By
	Pierce, Michal	10/11/2016	Pierce, Michal

### Details

-All SOQs and curricula vitae of crime laboratory employees will be reviewed for consistency with their submitted diplomas and academic transcripts. Supporting documentation for claims will be requested, if not already on file with HCIFS.-Honesty about education and qualification in area of expertise is being reiterated in ethics training sessions.-Court transcripts were reviewed by management and incidents of note will be incorporated into future testimony training sessions.

## Rev/App By: Manager/Director

Target Date	Owner	Closed Date	Closed By
9/29/2016	Samms, Warren	10/12/2016	Samms, Warren

### Details

I acknowledge I have reviewed this summary and approve.

## Rev/App By: Crime Lab Director

Target Date	Owner	Closed Date	Closed By
10/10/2016	Kahn, Roger	10/17/2016	Kahn, Roger

### Details

I acknowledge I have reviewed this summary and approve.

**Rev/App By: Quality Mgr**

<b>Target Date</b> 10/11/2016	<b>Owner</b> Young, Cynthia	<b>Closed Date</b> 10/17/2016	<b>Closed By</b> Young, Cynthia
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**Details**

I acknowledge I have reviewed this summary and approve.

**Closure by Quality Director**

<b>Target Date</b>	<b>Owner</b> Pierce, Michal	<b>Closed Date</b> 10/21/2016	<b>Closed By</b> Pierce, Michal
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**Details**

Employee submitted a letter of resignation the week of September 19th, before completing the performance improvement plan. Ethics and testimony training for the rest of staff will continue as planned.

## Curriculum Vitae

### ***Fessessework Guale. DVM, MS, D-ABVT, D-ABFT-FT***

Harris County Institute of Forensic Sciences

1885 Old Spanish Trail

Houston, TX 77054

Phone: 713-796-6908

Fax: 713-796-6838

[Fessessework.guale@ifs.hctx.net](mailto:Fessessework.guale@ifs.hctx.net)

## **Education**

1993-1996: Oklahoma State University, Stillwater, OK

- **MS:** Toxicology, Physiological Sciences, College of Veterinary Medicine
- **Thesis:** Evaluation of Chick Embryo Motoneurone Cultures for the Study of Neurotoxicity. Published in 1997.

1985-1990: Addis Ababa University, Ethiopia

- **DVM:** College of Veterinary Medicine
- **Thesis:** Prevalence of Coccidiosis and Identification of *Eimeria* Species

1981-1983: Addis Ababa University, Ethiopia

- **BS:** Animal Science, College of Agriculture

## **Professional Experience**

**May 2013-present: Toxicology Analytical Operations Manager:** Harris County Institute of Forensic Sciences

- Manage the daily operation of the Laboratory
- Perform technical, administrative and expert review of completed cases
- Provide consultations and toxicological interpretations to pathologists and law enforcement personnel
- Provide expert testimony in court
- Oversee the QA/QC operation of the laboratory
- Oversee the training and continuing education of staff members
- Hire subordinate staff
- Prepare annual budget for the laboratory
- Perform yearly performance evaluation of toxicology laboratory employees
- Prepare and present scientific articles



**May 2011-May 2013: Assistant Chief Toxicologist:** Harris County Institute of Forensic Sciences, Forensic Toxicology Section.

- Manage the daily operation of the toxicology laboratory
- Perform technical, administrative and expert review of completed cases
- Provide consultations and toxicological interpretations to pathologists and law enforcement personnel
- Provide expert testimony in court
- Plan and execute method development projects
- Prepare and present scientific articles
- Oversee the QA/QC operation of the laboratory
- Oversee the training and continuing education of staff members
- Hire subordinate staff
- Prepare annual budget for the laboratory
- Perform yearly performance evaluation of toxicology laboratory employees
- Prepare and present scientific articles

**June 2008- May 2011: Toxicologist I:** Harris County Institute of Forensic Sciences, Forensic Toxicology Section

- Manage and plan the daily operation of the toxicology laboratory
- Technical and administrative review completed cases
- Maintain laboratory compliance with quality control and quality assurance and accreditation by ABFT and ASCLAD/LAB.
- Provide expert witness in the court of law

**June 2006- June 2008: Toxicologist II Specialist:** Harris County Medical Examiners Office, Forensic Toxicology Section.

- **GC/MS Section Team Leader:** Provide leadership in all the activities of the section
- Technically review analytical data in the section
- Perform technical review and administrative review of completed cases
- Facilitate the completion of cases in a timely manner
- Responsible for troubleshooting instrument malfunctions and contact service technicians when necessary
- Review standard operating procedures, make necessary adjustments and/or changes to improve the efficiency of the analytical methods
- Assign team members daily duties
- Responsible for training and continuing education of team members
- Manages personnel issues in the section, including time sheets, time off requests, schedules, etc.
- Conduct the performance evaluation of team members

**2000-2006: Professional Research Associate/ Toxicologist.** Colorado State University Health Sciences Center, Forensic Toxicology Laboratory

- **Laboratory Manager:** Manage the day to day activity of the Forensic Toxicology laboratory
- Responsible for maintaining the laboratory's accreditation
- Organize the basic research activity in the laboratory
- Responsible for employee training and counseling
- Develop and validate new analytical methods
- Analyze, review and report analytical data
- Consult with law enforcement agencies, pathologists, and veterinarians on toxicology issues
- Provide expert testimony

**1991-2000; Analytical Toxicologist:** Oklahoma Animal Disease Diagnostic Laboratory, Oklahoma State University

- Analyze biological and environmental samples for drugs, pesticides, heavy metals, mycotoxins, feed additives, petroleum hydrocarbons, water pollutants and etc.
- Used, GC/MS, GC-FID, HPLC, AA, TLC, ELISA and bench chemistry
- Write and review standard operation procedures
- Analyze data, interpret and report results
- Consult with veterinarians and provide diagnostic service
- Perform research to improve and develop analytical methods
- Provide training to residents in analytical toxicology

## **Awards and Certificates**

**2007-Diplomate: American Board of Forensic Toxicology**

**1999-Diplomate: American Board of Veterinary Toxicology**

**1990-Academic Excellence Award;** College of Veterinary Medicine

**1981-Academic Excellence Award,** College of Agriculture

## **Publications**

Fessessework Guale, Shahriar Shahreza, Jeffrey P. Walterscheid, Hsin-Hung Chen, Crystal Arndt, Anna T. Kelly and Ashraf Mozayani: **Validation of LC-TOF-MS screening for drugs, metabolites and collateral compounds in Forensic Toxicology specimens.** Journal of Analytical Toxicology, Vol. 37. No. 1, 2013 pages 17-25.

K. Bischoff, F. Guale; **Australian Tea Tree ( *Melaleuca alternifolia*) oil poisoning in three purebred cats.** Journal of Veterinary Diagnostic Investigations, Volume 10, 1998 pages 208-210

Fessessework G. Guale, George E. Burrows: **Evaluation of Chick Embryo Motoneuron Cultures for the Study of Neurotoxicity.** Natural Toxins, Volume 5, Number 3, 1997, pages 115-120

FG. Guale, EL. Stairs, WB. Johnson, WC. Edwards, JC. Haliburton: **Laboratory Diagnosis of Zinc Phosphide Poisoning.** Veterinary and Human Toxicology, Volume 36, No. 6, December 1994, pages 517-519

Fessessework Guale, **Assessment of Rectal Temperature, Pulse, and Respiratory rates in Healthy Pack Donkeys.** Student Scientific Journal, April 1989, College of Veterinary Medicine, Addis Ababa University, Ethiopia

## **Presentations**

- **Applications of Fast GC-MS in the analysis of Opiates.** Poster presented on October 19, 2007 at Society of Forensic Toxicology Continuing Education Workshop, Raleigh-Durham, NC.
- **Clinical or Forensic Case-A Crossroad for Interpretation:** Presented to Toxicology staff, at the Harris County Medical Examiners Office, October 2007, Houston, TX
- **Pharmacokinetics and Interpretation of Cocaine:** Presented to Fellows and Pathology Residents of the Harris County Medical Examiners Office, September 2007, Houston, TX
- **Interpretive DUID:** Presented to Toxicology staff at Harris County Medical Examiners Office, June 2008, Houston, TX
- **Pharmacokinetics and Interpretation of Cocaine:** Presented to Fellows and pathology residents of the Harris County Medical Examiners Office, October 2008, Houston, TX
- **Interpretive DUID Workshop:** Workshop Coordinator, SOFT/AAFS Drugs and Driving Committee Seminar, May 12-13, 2009, Houston, Texas.
- **Pharmacokinetics and Interpretation of Cocaine:** Presented to Fellows and Pathology Residents of the Harris County Medical Examiners Office, December 2009, Houston, TX
- **Phencyclidine (PCP) in fatally injured drivers and DUID arrests in Harris County, Texas.** Presented at the American Academy of Forensic Sciences, annual scientific meeting, February 24, 2010, Seattle, WA.

- **Pharmacokinetics and Interpretation of Cocaine:** Presented to Fellows and Pathology Residents of the Harris County Medical Examiners Office, November 2010, Houston, TX
- **Drug Testing and Interpretation in Postmortem Toxicology:** Presented at Harris County Institute of Forensic Sciences: Topics in Forensic Sciences Conference, April 15, 2011, Houston, TX.
- **Proof of concept for a comprehensive method for rapid drug screening of whole blood with UHPLC accurate-mass TOF LC/MS.** Presented at the SOFT-TIAFT joint meeting on September 25-30, 2011, San Francisco, CA
- **Pharmacokinetics and Interpretation of Cocaine:** Presented to Fellows and Pathology Residents of the Harris County Institute of Forensic Sciences, November 2011, Houston, TX
- **Toxicology result of drivers of fatal motor vehicle accidents in Harris County, TX, 2011.** Presented at the American Academy of Forensic Sciences annual meeting, February 22, 2013, Washington DC.
- **Recent Trends of Designer Drugs in Harris County Texas:** Presented at the American Academy of Forensic Sciences annual meeting. February 21, 2014, Seattle, WA
- **Diclazepam: Lorazepam in Disguise.** Presented at the American Academy of Forensic Sciences annual meeting, February 26, 2016, Las Vegas, NV.

**ASCLD/LAB-International**

**STATEMENT OF QUALIFICATIONS**

<b>Name</b>	Fessessework Guale	<b>Date</b>	12/31/15
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<b>Laboratory</b>	Harris County Institute of Forensic Sciences
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<b>Job Title</b>	Toxicology Analytical Operations Manager
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Indicate all disciplines in which you do casework:

<input type="checkbox"/>	Drug Chemistry	<input checked="" type="checkbox"/>	Toxicology
<input type="checkbox"/>	Firearms/Toolmarks	<input type="checkbox"/>	Biology
<input type="checkbox"/>	Trace Evidence	<input type="checkbox"/>	Questioned Documents
<input type="checkbox"/>	Latent Prints	<input type="checkbox"/>	Crime Scene
<input type="checkbox"/>	Digital & Multimedia Evidence		

List all category(ies) of testing in which you do casework:

Human Performance and Post-Mortem Forensic Toxicology
---

**Breath Alcohol Calibration Categories**

<input type="checkbox"/>	Toxicology - Breath Alcohol Measuring Instruments (The work of the laboratory MUST include calibration certificates- do not check the box if work is limited to breath/alcohol testing)
<input type="checkbox"/>	Toxicology - Breath Alcohol Calibration Reference Material

**Education:** List all higher academic institutions attended (list high school only if no college degree has been attained)

Institution	Dates Attended	Major	Degree Completed
Oklahoma State University	1993-1996	Toxicology	MSc
Addis Ababa University	1985-1990	Veterinary Medicine	DVM
Addis Ababa University	1981-1983	Animal Science	Bsc

**Other Training:** List continuing education, workshops, in-service and other formal training received. Please include the course title, source and date of the training.

-SOFT: Society of Forensic Toxicologists Workshop, October 15-19, 2007, Raleigh, NC -Interpretive DUID workshop: SOFT/AAFS Drug and Driving and Continuing Education Committee Seminar, May 6-8, 2008, West Palm Beach, FL -Opioids and Pain Management: RTI training, on-line course, June 2008, Houston, TX -Interpretive DUID workshop: SOFT/AAFS Drug and Driving and Continuing Education Committee Seminar, May 12-13, 2009, Houston TX -Traffic Fatality Investigation Seminar, November 2009, Houston, TX -ISO/IEC 17025 and Forensic Services Provider Accreditation Wotkshop: May 10-14 2010, Houston, TX -Confirmation Bias, Ethics, and Mistake in Forensics: Forensic Ethics Seminar, May 12, 2010, Houston, TX -Medicolegal death investigation Seminar, June 15, 2010 -Alcohol extrapolation and the use of BAC tracker Software, August 19, 2010 -Southwestern Association of Toxicologists, Fall 2010 meeting, September 16-18, 2010 Houston, TX -Scientific sessions at the American Academy of Forensic Sciences, 62 <sup>nd</sup> Annual scientific meeting, February 24-25, 2010 Seattle, WA -Scientific sessions at SOFT-TIAFT conference, San Fransisco, CA, September 21-23, 2011
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13. Scientific sessions at the annual AAFS conference, Washington, DC, February 22-23, 2013  
 14. Scientific sessions at the annual AAFS conference, Seattle, WA, February 20-21, 2014

**Courtroom Experience:** List the discipline/category(ies) of testing in which you have qualified to testify as an expert witness and indicate over what period of time and approximately how many times you have testified in each.

Toxicology/human performance: 2/2004, 1/2009, 1/2010, 1/2011, 6/2012, 2/2013, 2/2014, 14/2015

**Professional Affiliations:** List any professional organizations of which you are or have been a member. Indicate any offices or other positions held and the date(s) of these activities.

Southwestern Association of Toxicologists  
 American Academy of Forensic Sciences  
 California Association of Toxicologists  
 American Board of Veterinary Toxicology

**Employment History:** List all scientific or technical positions held, particularly those related to forensic science. List current position first. Be sure to indicate employer and give a brief summary of principal duties and tenure in each position.

<b>Job Title</b>	Toxicology Analytical Operations Manager	<b>Tenure</b>	present
<b>Employer</b>	HCIFS		
Provide a brief description of principal duties:			
Provide leadership in the analytical operations of the toxicology laboratory, Responsible for the day to day activity of analysts and the work flow of cases			

<b>Job Title</b>	Assistant Chief Toxicologist	<b>Tenure</b>	2 years
<b>Employer</b>	HCIFS		
Provide a brief description of principal duties:			
Assist the Chief Toxicologist in the management of the laboratory			

<b>Job Title</b>	Toxicologist I	<b>Tenure</b>	2 years
<b>Employer</b>	HCIFS		
Provide a brief description of principal duties:			
Supervise the GC/MS and LC/MS/MS sections of the toxicology laboratory			

<b>Job Title</b>	Toxicologist II Specialist	<b>Tenure</b>	2 years
<b>Employer</b>	HCIFS		
Provide a brief description of principal duties:			
GC/MS section team leader, perform data analysis, data review, technical and administrative review of cases			

<b>Job Title</b>	Forensic Toxicology Laboratory Manager/Research Associate	<b>Tenure</b>	5.7
<b>Employer</b>	University of Colorado Health Sciences Center		
Provide a brief description of principal duties:			
Assist the lead investigator in basic research, manage the day to day activity of the forensic toxicology laboratory			

**Other Qualifications:** List below any scientific publication and/or presentation you have authored or co-authored, research in which you are or have been involved, academic or other teaching positions you have held, and any other information which you consider relevant to your qualification as a forensic scientist.  
 (Use additional sheets if necessary.)

#### PRESENTATIONS:

-Recent Trends of Designer Drugs in Harris County, Texas: AAFS annual conference, Seattle, WA, February 17-22, 2014

- Toxicology Result of Drivers of Fatal Motor Vehicle Accidents in Harris County, Texas in 2011: AAFS Annual conference, Washington, DC, February 22, 2013
- Proof of concept for a comprehensive method for rapid drug screening of whole blood with UHPLC Accurate-mass TOF LC/MS: SOFT-TIAFT conference, San Francisco, CA, September 23, 2011.
- Interpretation and Pharmacokinetics of Cocaine: Presented to Pathology Fellows of HCIFS. December 2010
- Phencyclidine (PCP) in Fataaly Injured Drivers and DUID Arrests in Harris County, Texas : AAFS Annual Conference, Seattle, WA, February 24, 2010
- Interpretation and Pharmacokinetics of Cocaine: Presented to Pathology Fellows and Toxicology Staff of HCIFS, December 2009, Houston TX
- Interpretive DUID: Presented to Toxicology Staff of HCIFS, July 2008, Houston, TX
- Poster presentation on Fast opiate analysis by GC/MS: SOFT, Raleigh, NC, October 15-19, 2007.
- Clinical or Forensic Case: A Cross road to Interpretation: Presented to Toxicology Staff of HCIFS, November 2007, Houston, TX
- Prevalence of Drugs of Abuse from DUID cases in Denver Colorado, 2003-2005. Presented to Toxicology Staff on May 8, 2006 at HCIFS.

#### PUBLICATIONS:

1. Validation of LC-TOF-MS screening for drugs, metabolites and collateral compounds in Forensic Toxicology specimens: Journal of Analytica Toxicology, Volume 37, number 1, 2013, pages 17-24
- 2: Australian tea tree oil poisoning in three purebred cats. Journal of Veterinary Diagnostic Investigation. Volume 10, 1998, pages 208-210
- 3: Evaluation of Chick Embryo Motoneuron Cultures for the study of Neurotoxicity. Natural toxins, Volume 5, number 3, 1997 pages 115-120
- 4: Laboratory Diagnosis of Zinc Phosphide Poisoning. Veterinary and Human Toxicology. Volume 36, number 6, 1994, pages 517-519

#### CERTIFICATES:

- 1: Diplomate: American Board of Veterinary Toxicology
- 2: Diplomate: American Board of Forensic Toxicology: Forensic Toxicology Specialist

# Okahoma State University

Office of the Registrar  
103 Whitehurst Hall  
Stillwater, Oklahoma 74078-1013

DATE: 05-11-99 PAGE 1 OF 1

FESSESSEWORK G GUALE  
18-2 N UNIVERSITY PL  
STILLWATER OK 74075

NAME: FESSESSEWORK G GUALE

STUDENT ID: 442-02-9149

BIRTHDATE: 07-11-63

ISSUED TO STUDENT

## \*\*\*\*\* DEGREES CONFERRED \*\*\*\*\*

05-04-96 MASTER OF SCIENCE  
MAJOR: PHYSIOLOGICAL SCIENCE

## \*\*\*\*\* COURSE INFORMATION \*\*\*\*\*

DEPT	NUMBER	TITLE	SEM	HR	GRADE
HR ATT	HR ERND	HR AVE	PT	GPA	

FALL SEMESTER 1992					
PHSI	6564	VET TOXICOLOGY	04	B	
SEM	4	4	4	12.00	3.00

SPRING SEMESTER 1993					
STAT	5013	STAT EXPERIMENTERS I	03	B	
SEM	3	3	3	9.00	3.00

FALL SEMESTER 1993					
PHSI	5110	PROBLEMS IN PHYSIOLOGY	01	A	
PHSI	6200	TOPICS ADV PHARM & TOX	02	A	
PHSI	6570	SEMINAR	01	A	
SEM	4	4	4	16.00	4.00

SPRING SEMESTER 1994					
PHSI	5224	CELL STRUCTURE & FUNC	04	B	
SEM	4	4	4	12.00	3.00

SUMMER SESSION 1994					
PHSI	5000	RESEARCH AND THESIS	03	X A	
SEM	3	3	3	12.00	4.00

FALL SEMESTER 1994					
PHSI	6200	TOPICS ADV PHARM & TOX	04	A	
SEM	4	4	4	16.00	4.00

SPRING SEMESTER 1995					
PHSI	5000	RESEARCH AND THESIS	03	X A	
SEM	3	3	3	12.00	4.00

FALL SEMESTER 1995					
PHSI	6570	SEMINAR	01	I A	
SEM	1	1	1	4.00	4.00

SPRING SEMESTER 1996					
PHSI	5000	RESEARCH AND THESIS	02	A	
SEM	2	2	2	8.00	4.00

ACCEPTED 4 CREDITS FROM ADDIS ABABA  
UNIVERSITY, ETHIOPIA TOWARD THE MASTER  
OF SCIENCE DEGREE.

\*\*\*\*\* CONTINUED ON NEXT COLUMN \*\*\*\*\*

DEPT	NUMBER	TITLE	SEM	HR	GRADE
HR ATT	HR ERND	HR AVE	PT	GPA	

OKLAHOMA STATE UNIVERSITY					
NON-DEG	7	7	7	21.00	3.00
MASTERS	21	21	21	80.00	3.80

CUMULATIVE					
NON-DEG	7	7	7	21.00	3.00
MASTERS	21	21	21	80.00	3.80

\*\*\*\*\* END OF TRANSCRIPT \*\*\*\*\*

AN OFFICIAL SIGNATURE IS WHITE WITH A GRAY BACKGROUND

REJECT DOCUMENT IF SIGNATURE BELOW IS DISTORTED

This officially sealed and signed transcript is printed on gray SCRIP-SAFE® security paper with the name of the university printed in white type across the face of the document. When photocopied the word COPY should appear. A raised seal is not required. A BLACK ON WHITE OR COLOR COPY SHOULD NOT BE ACCEPTED.



*The Oklahoma State Regents for Higher Education acting through*

# Oklahoma State University

*have admitted*

**Hessesssennark G. Gualp**

*to the degree of*

**Master of Science**

**Physiological Science**

*and all the honors, privileges and obligations belonging thereto,  
and in witness thereof have authorized the issuance of  
this Diploma duly signed and sealed.*

*Issued at the Oklahoma State University at Stillwater, Oklahoma on the  
fourth day of May, nineteen hundred and ninety-six*

*For The Regents*

*For the University*



*Frederick W. McCann*

*Chairman*

*Robert L. McCombs*

*Secretary*

*John M. [Signature]*

*Chancellor*

*Douglas [Signature]*

*Chairman, Board of Regents*

*James E. [Signature]*

*President of the University*

*James C. Collins*

*Dean of Division*





# አዲስ : አበባ : ዩኒቨርሲቲ : ADDIS ABABA UNIVERSITY

የአዲስ : አበባ : ዩኒቨርሲቲ : ፖሊሲ : ከከፍተኛ :  
ትምህርት : ኮሚሽን : በተሰጠው : ሥልጣን : መሠረት :

The Senate of Addis Ababa University by virtue of the  
powers vested in it by the Commission for Higher  
Education hereby grants to :

በአንስሳት ሕክምና የዶክተርነት ዲግሪ

Fessessework Guale G.Tsadik

ከሙሉ : ክብሩ : ጥቅሙ : ግዴታዎቹ : ጋር :

ለ ፈሰሰወርቅ ጌለ ጉዳዲቅ

THE DEGREE OF  
DOCTOR OF  
VETERINARY MEDICINE

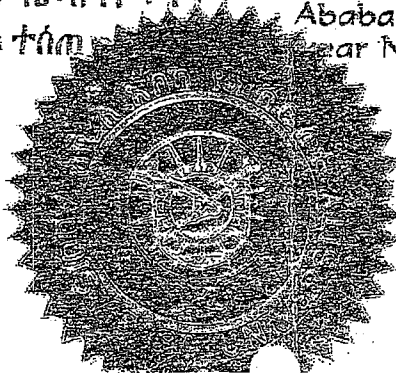
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ሰቢህም : ምስክር : ይሆን : ዘንድ : በዲፕሎማው : ላይ : የዩኒቨርሲቲውን :  
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አሥራ : ዘመን : መቶ : ሰማንያ : ሁለት : ዓመት : ምሕረት : ተሰጠ

with all Honours, Privileges and Obligations pertaining  
thereto and in witness thereof has authorized the issuance  
of this diploma duly signed and sealed. Issued in Addis  
Ababa on this Fourteenth day of the month of July in the  
Year Nineteen-Hundred and Ninety.

*Abay Nigb*

የዩኒቨርሲቲው ፕሬዚዳንት  
President of the University



*Xoan*

የአንስሳት ሕክምና ፋኩልቲ ዲን  
Dean, Faculty of Veterinary Medicine



## Curriculum Vitae

***Fessessework Guale, DVM, MS, D-ABVT, D-ABFT-FT***

Harris County Institute of Forensic Sciences

1885 Old Spanish Trail

Houston, TX 77054

## Education

1993-1996: Oklahoma State University, Stillwater, OK

- **MS:** Physiological Science, College of Veterinary Medicine
- **Thesis:** Evaluation of Chick Embryo Motoneuron Cultures for the Study of Neurotoxicity. Published in 1997.

1985-1990: Addis Ababa University, Ethiopia

- **DVM:** College of Veterinary Medicine
- **Thesis:** Prevalence of Coccidiosis and Identification of *Eimeria* Species

1981-1983: Addis Ababa University, Ethiopia

- **BS:** Animal Science, College of Agriculture

## Professional Experience

**May 2013-present: Toxicology Analytical Operations Manager:** Harris County Institute of Forensic Sciences, Forensic Toxicology Section

- Manage the daily operation of the laboratory
- Perform technical, administrative and expert review of completed cases
- Provide consultations and toxicological interpretations to pathologists and law enforcement personnel
- Provide expert testimony
- Oversee the QA/QC operation of the laboratory
- Oversee the training and continuing education of staff members
- Hire subordinate staff
- Prepare annual budget for the laboratory
- Perform yearly performance evaluation of toxicology laboratory employees
- Prepare and present scientific articles

**May 2011-May 2013: Assistant Chief Toxicologist:** Harris County Institute of Forensic Sciences, Forensic Toxicology Section

- Manage the daily operation of the toxicology laboratory
- Perform technical, administrative and expert review of completed cases
- Provide consultations and toxicological interpretations to pathologists and law enforcement personnel
- Provide expert testimony
- Plan and execute method development projects
- Prepare and present scientific articles
- Oversee the QA/QC operation of the laboratory
- Oversee the training and continuing education of staff members
- Hire subordinate staff
- Prepare annual budget for the laboratory
- Perform yearly performance evaluation of toxicology laboratory employees
- Prepare and present scientific articles

**June 2008-May 2011: Toxicologist I:** Harris County Institute of Forensic Sciences, Forensic Toxicology Section

- Manage and plan the daily operation of the toxicology laboratory
- Technical and administrative review completed cases
- Maintain laboratory compliance with quality control and quality assurance and accreditation by ABFT and ASCLD/LAB International
- Provide expert testimony

**June 2006-June 2008: Toxicologist II Specialist:** Harris County Medical Examiner's Office, Forensic Toxicology Section

- **GC/MS Section Team Leader:** Provide leadership in all the activities of the section
- Technically review analytical data in the section
- Perform technical review and administrative review of completed cases
- Facilitate the completion of cases in a timely manner
- Responsible for troubleshooting instrument malfunctions and contact service technicians when necessary
- Review standard operating procedures, make necessary adjustments and/or changes to improve the efficiency of the analytical methods
- Assign team members daily duties
- Responsible for training and continuing education of team members
- Manages personnel issues in the section, including time sheets, time off requests, schedules, etc.
- Conduct the performance evaluation of team members

**2000-2006: Research Associate/Toxicologist:** Colorado State University Health Sciences Center, Research and Forensic Toxicology Laboratory

- **Laboratory Manager:** Manage the day to day activity of the Research and Forensic Toxicology Laboratory
- Responsible for maintaining the laboratory's accreditation

- Organize the basic research activity in the laboratory
- Responsible for employee training and counseling
- Develop and validate new analytical methods
- Analyze, review and report analytical data
- Consult with law enforcement agencies, pathologists, and veterinarians on toxicology interpretation
- Provide expert testimony

**1991-2000: Analytical Toxicologist:** Oklahoma Animal Disease Diagnostic Laboratory, Oklahoma State University

- Analyze biological and environmental samples for drugs, pesticides, heavy metals, mycotoxins, feed additives, petroleum hydrocarbons, water pollutants and etc.
- Used GC/MS, GC-FID, HPLC, AA, TLC, ELISA and bench chemistry
- Write and review standard operation procedures
- Analyze data, interpret and report results
- Consult with veterinarians and provide diagnostic service
- Perform research to improve and develop analytical methods
- Provide training to residents in analytical toxicology

## Certificates

- 2007-Diplomate: American Board of Forensic Toxicology
- 1999-Diplomate: American Board of Veterinary Toxicology

## Publications

- Fessessework Guale, Shahriar Shahreza, Jeffrey P. Walterscheid, Hsin-Hung Chen, Crystal Arndt, Anna T. Kelly and Ashraf Mozayani: **Validation of LC-TOF-MS screening for drugs, metabolites and collateral compounds in Forensic Toxicology specimens.** Journal of Analytical Toxicology, Vol. 37. No. 1, 2013 pages 17-25
- K. Bischoff, F. Guale: **Australian Tea Tree (*Melaleuca alternifolia*) oil poisoning in three purebred cats.** Journal of Veterinary Diagnostic Investigations, Volume 10, 1998 pages 208-210
- Fessessework G. Guale, George E. Burrows: **Evaluation of Chick Embryo Motoneuron Cultures for the Study of Neurotoxicity.** Natural Toxins, Volume 5, Number 3, 1997, pages 115-120

- FG. Gualle, EL. Stairs, WB. Johnson, WC. Edwards, JC. Haliburton: **Laboratory Diagnosis of Zinc Phosphide Poisoning**. Veterinary and Human Toxicology, Volume 36, No. 6, December 1994, pages 517-519

## **Presentations**

- **A Case of Death by Diclazepam: Lorazepam in Disguise:** Presented at the American Academy of Forensic Sciences annual meeting, February 26, 2016, Las Vegas, NV
- **Recent Trends of Designer Drugs in Harris County Texas:** Presented at the American Academy of Forensic Sciences annual meeting. February 21, 2014, Seattle, WA
- **Toxicology result of drivers of fatal motor vehicle accidents in Harris County, TX, 2011:** Presented at the American Academy of Forensic Sciences annual meeting, February 22, 2013, Washington, DC
- **Pharmacokinetics and Interpretation of Cocaine:** Presented to Fellows and Pathology Residents of the Harris County Institute of Forensic Sciences, November 2011, Houston, TX
- **Proof of concept for a comprehensive method for rapid drug screening of whole blood with UHPLC accurate-mass TOF LC/MS:** Presented at the SOFT-TIAFT joint meeting on September 29, 2011, San Francisco, CA
- **Drug Testing and Interpretation in Postmortem Toxicology:** Presented at Harris County Institute of Forensic Sciences: Topics in Forensic Sciences Conference, April 15, 2011, Houston, TX
- **Pharmacokinetics and Interpretation of Cocaine:** Presented to Fellows and Pathology Residents of the Harris County Medical Examiner's Office, November 2010, Houston, TX
- **Phencyclidine (PCP) in fatally injured drivers and DUID arrests in Harris County, Texas:** Presented at the American Academy of Forensic Sciences, annual scientific meeting, February 24, 2010, Seattle, WA

- **Pharmacokinetics and Interpretation of Cocaine:** Presented to Fellows and Pathology Residents of the Harris County Medical Examiner's Office, December 2009, Houston, TX
- **Interpretive DUID Workshop:** Workshop Coordinator, SOFT/AAFS Drugs and Driving Committee Seminar, May 12-13, 2009, Houston, TX
- **Pharmacokinetics and Interpretation of Cocaine:** Presented to Fellows and pathology residents of the Harris County Medical Examiner's Office, October 2008, Houston, TX
- **Interpretive DUID:** Presented to Toxicology staff at Harris County Medical Examiner's Office, June 2008, Houston, TX
- **Clinical or Forensic Case-A Crossroad for Interpretation:** Presented to Toxicology staff, at the Harris County Medical Examiner's Office, November, 2007, Houston, TX
- **Applications of Fast GC-MS in the analysis of Opiates:** Poster presented on October 19, 2007 at Society of Forensic Toxicology Continuing Education Workshop, Raleigh-Durham, NC

## **Training**

- Scientific sessions, AAFS Annual Scientific Meeting, February 25-27, 2016, Las Vegas, NV
- Scientific sessions, AAFS Annual Scientific Meeting, February 20-22, 2014, Seattle, WA
- Scientific sessions, AAFS Annual Scientific Meeting, February 21-23, 2013, Washington, DC
- Fundamentals of LC/MS/MS, RTI on-line course, December 20, 2011, HCIFS
- Specimen Validity Testing, RTI on-line course, October 27, 2011, HCIFS
- Scientific sessions, Joint SOFT-TIAFT Conference, September 28-30, 2011, San Francisco, CA
- Scientific sessions, AAFS Annual Scientific Meeting, February 23-25, 2010, Seattle, WA



- Scientific sessions, SAT, Fall 2010 Meeting, September 16-18, 2010, Houston, TX
- Alcohol Extrapolation and the use of BAC Tracker Software, August 19, 2010, HCIFS
- Medicolegal Death Investigation Seminar, June 15, 2010, HCIFS
- Confirmation Bias, Ethics, and Mistakes in Forensics: Forensic Ethics Seminar, May 12, 2010, HCIFS
- ISO/IEC 17025 and Forensic Service Provider Accreditation Workshop, May 10-14, 2010, HCIFS
- GC/MS/MS Training, Agilent Technologies, February 8-12, 2010, HCIFS
- Traffic Fatality Investigation Seminar, Harris County Sheriff's Office, November 2009, Houston, TX
- Interpretive DUID Workshop, SOFT Continuing Education Committee and SOFT/AAFS Drugs & Driving Committee Seminar, May 12-13, 2009, HCIFS
- Opioids and Pain Management, RTI training, on-line course, June 11, 2008, HCIFS
- Interpretive DUID Workshop, SOFT Continuing Education Committee and SOFT/AAFS Drugs & Driving Committee Seminar, May 6-8, 2008, West Palm Beach, FL
- Clinical or Forensic Case: A Crossroad for Interpretation, SOFT Continuing Education Committee Workshop, October 16, 2007, Raleigh-Durham, NC

**ASCLD/LAB-International**

**STATEMENT OF QUALIFICATIONS**

<b>Name</b>	Fessessework Guale	<b>Date</b>	09/02/2016
-------------	--------------------	-------------	------------

<b>Laboratory</b>	Toxicology
-------------------	------------

<b>Job Title</b>	Toxicology Analytical Operations Manager
------------------	--

**Indicate all disciplines in which you do casework:**

<input type="checkbox"/>	<b>Drug Chemistry</b>	<input checked="" type="checkbox"/>	<b>Toxicology</b>
<input type="checkbox"/>	<b>Firearms/Toolmarks</b>	<input type="checkbox"/>	<b>Biology</b>
<input type="checkbox"/>	<b>Trace Evidence</b>	<input type="checkbox"/>	<b>Questioned Documents</b>
<input type="checkbox"/>	<b>Latent Prints</b>	<input type="checkbox"/>	<b>Crime Scene</b>
<input type="checkbox"/>	<b>Digital &amp; Multimedia Evidence</b>		

**List all category(ies) of testing in which you do casework:**

Human Performance and Post-Mortem Forensic Toxicology
---

**Breath Alcohol Calibration Categories**

<input type="checkbox"/>	<b>Toxicology</b> - Breath Alcohol Measuring Instruments (The work of the laboratory MUST include calibration certificates- do not check the box if work is limited to breath/alcohol testing)
<input type="checkbox"/>	<b>Toxicology</b> - Breath Alcohol Calibration Reference Material

**Education:** List all higher academic institutions attended (list high school only if no college degree has been attained)

Institution	Dates Attended	Major	Degree Completed
Oklahoma State University	1993-1996	Physiological Science	MSc
Addid Ababa University	1985-1990	Veterinary Medicine	DVM
Addis Ababa University	1981-1983	Animal Science	Bsc

**Other Training:** List continuing education, workshops, in-service and other formal training received. Please include the course title, source and date of the training.

1:SOFT: Society of Forensic Toxicologists Workshop, October 15-19, 2007, Raleigh, NC 2:Interpretive DUID workshop: SOFT/AAFS Drug and Driving and Continuing Education Committee Seminar, May 6-8, 2008, West Palm Beach, FL 3:Opioids and Pain Management: RTI training, on-line course, June 2008, Houston, TX 4: Interpretive DUID workshop: SOFT/AAFS Drug and Driving and Continuing Education Committee Seminar, May 12-13, 2009, Houston TX 5:Traffic Fatality Investigation Seminar, November 2009, Houston, TX 6:ISO/IEC 17025 and Forensic Services Provider Accreditation Wotkshop: May 10-14 2010, Houston, TX 7:Confirmation Bias, Ethics, and Mistake in Forensics: Forensic Ethics Seminar, May 12, 2010, Houston, TX 8. Medicolegal death investigation Seminar, June 15, 2010 9. Alcohol extrapolation and the use of BAC tracker Software, August 19, 2010 10. Southwestern Association of Toxicologists, Fall 2010 meeting, September 16-18, 2010 Houston, TX 11. Scientific sessions at the American Academy of Forensic Sciences, 62 <sup>nd</sup> Annual scientific meeting, February 24-25, 2010 Seattle, WA
---

12. Scientific sessions at SOFT-TIAFT conference, San Francisco, CA, September 21-23, 2011
13. Scientific sessions at the annual AAFS conference, Washington, DC, February 22-23, 2013
14. Scientific sessions at the annual AAFS conference, Seattle, WA, February 20-21, 2014

**Courtroom Experience:** List the discipline/category(ies) of testing in which you have qualified to testify as an expert witness and indicate over what period of time and approximately how many times you have testified in each.

DWI/DUID: 2/2004, 1/2009, 1/2010, 1/2011, 6/2012, 2/2013, 2/2014, 14/2015

**Professional Affiliations:** List any professional organizations of which you are or have been a member. Indicate any offices or other positions held and the date(s) of these activities.

Southwestern Association of Toxicologists  
 American Academy of Forensic Sciences  
 California Association of Toxicologists  
 American Board of Veterinary Toxicology

**Employment History:** List all scientific or technical positions held, particularly those related to forensic science. List current position first. Be sure to indicate employer and give a brief summary of principal duties and tenure in each position.

<b>Job Title</b>	Toxicology Analytical Operations Manager	<b>Tenure</b>	present
<b>Employer</b>	HCIFS		
Provide a brief description of principal duties:			
Provide leadership in the analytical operations of the toxicology laboratory, Responsible for the day to day activity of analysts and the work flow of cases			

<b>Job Title</b>	Assistant Chief Toxicologist	<b>Tenure</b>	2 years
<b>Employer</b>	HCIFS		
Provide a brief description of principal duties:			
Assist the Chief Toxicologist in the management of the laboratory			

<b>Job Title</b>	Toxicologist I	<b>Tenure</b>	2 years
<b>Employer</b>	HCIFS		
Provide a brief description of principal duties:			
Supervise the GC/MS and LC/MS/MS sections of the toxicology laboratory			

<b>Job Title</b>	Toxicologist II Specialist	<b>Tenure</b>	2 years
<b>Employer</b>	HCIFS		
Provide a brief description of principal duties:			
GC/MS section team leader, perform data analysis, data review, technical and administrative review of cases			

<b>Job Title</b>	Forensic Toxicology Laboratory Manager/Research Associate	<b>Tenure</b>	5.7
<b>Employer</b>	University of Colorado Health Sciences Center		
Provide a brief description of principal duties:			
Assist the lead investigator in basic research, manage the day to day activity of the forensic toxicology laboratory			

**Other Qualifications:** List below any scientific publication and/or presentation you have authored or co-authored, research in which you are or have been involved, academic or other teaching positions you have held, and any other information which you consider relevant to your qualification as a forensic scientist.  
 (Use additional sheets if necessary.)

#### PRESENTATIONS:

1. Recent Trends of Designer Drugs in Harris County, Texas: AAFS annual conference, Seattle, WA,

February 17-22, 2014

2. Toxicology Result of Drivers of Fatal Motor Vehicle Accidents in Harris County, Texas in 2011: AAFS Annual conference, Washington, DC, February 22, 2013
3. Proof of concept for a comprehensive method for rapid drug screening of whole blood with UHPLC Accurate-mass TOF LC/MS, presented at the SOFT-TIAFT conference on September 23, 2011, San Francisco, CA.
4. Interpretation and Pharmacokinetics of Cocaine: Presented to Pathology Fellows of HCIFS. December 2010
5. Phencyclidine (PCP) in Fatally Injured Drivers and DUID Arrests in Harris County, Texas : presented at the American Academy of Forensic Sciences, 62nd Annual Scientific Meeting, February 24, 2010, Seattle, WA
6. Interpretation and Pharmacokinetics of Cocaine: Presented to Pathology Fellows and Toxicology Staff of HCIFS, December 2009, Houston TX
7. Interpretive DUID: Presented to Toxicology Staff of HCIFS, July 2008, Houston, TX
8. Poster presentation on Fast opiate analysis by GC/MS, SOFT, October 15-19, 2007. Raleigh, NC
9. Clinical or Forensic Case: A Cross road to Interpretation: Presented to Toxicology Staff of HCIFS, November 2007, Houston, TX
10. Prevalence of Drugs of Abuse from DUID cases in Denver Colorado, 2003-2005. Presented to Toxicology Staff on May 8, 2006 at HCIFS.

#### PUBLICATIONS:

1. Validation of LC-TOF-MS screening for drugs, metabolites and collateral compounds in Forensic Toxicology specimens: Journal of Analytical Toxicology, Volume 37, number 1, 2013, pages 17-24
2. Australian tea tree oil poisoning in three purebred cats. Journal of Veterinary Diagnostic Investigation. Volume 10, 1998, pages 208-210
3. Evaluation of Chick Embryo Motoneuron Cultures for the study of Neurotoxicity. Natural toxins, Volume 5, number 3, 1997 pages 115-120
4. Laboratory Diagnosis of Zinc Phosphide Poisoning. Veterinary and Human Toxicology. Volume 36, number 6, 1994, pages 517-519

#### CERTIFICATES:

- 1: Diplomat: American Board of Veterinary Toxicology
- 2: Diplomat: American Board of Forensic Toxicology: Forensic Toxicology Specialist

## REPORTER'S RECORD

Volume 1 of 1 Volume

Trial Court Cause No. 1459301

THE STATE OF TEXAS : IN THE DISTRICT COURT OF  
VS. : HARRIS COUNTY, T E X A S  
JAIME JOEL FLORES : 177TH JUDICIAL DISTRICT

---

EXCERPT OF TESTIMONY OF  
DR. FESSESSEWORK GUALE

---

On the 22nd day of August, 2016, the  
following proceedings came on to be heard in the  
above-entitled and numbered cause before the  
Honorable H.D. Black, Jr., Judge presiding, held in  
Houston, Harris County, Texas.

Proceedings reported by computerized  
stenotype machine.

Linda Hacker, Texas CSR #4167  
Official Court Reporter - 177th District Court  
1201 Franklin, 19th Floor  
Houston, Texas 77002  
713-755-6332



## A P P E A R A N C E S

Attorney(s) for the State:

Ms. Lauren Clemons  
SBOT No. 24077068  
Ms. Alison Baimbridge  
SBOT No. 24040160  
Assistant District Attorneys  
1201 Franklin, Suite 600  
Houston, Texas 77002  
Phone: 713-274-5800

Attorney(s) for the Defendant:

Mr. Maverick Ray  
Attorney At Law  
SBOT No. 24080451  
310 Main Street, Suite 300  
Houston, Texas 77002  
Phone: 281-947-2007

Mr. Jonathan Stephenson  
Attorney at Law  
SBOT No. 24046913  
111 W. 15th Street  
Houston, Texas 77008  
Phone: 832-930-0559

## CHRONOLOGICAL INDEX

VOLUME 1  
(EXCERPT OF DR. FESSESSEWORK GUALE)

August 22, 2016

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FESSESSEWORK GUALE

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Jury retired

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HEARING OUTSIDE JURY'S PRESENCE

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By Mr. Stephenson

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By Ms. Clemons

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P R O C E E D I N G S

August 22, 2016

\* \* \* \* \*

(Jury seated.)

\* \* \* \* \*

**FESSESSEWORK GUALE,**

having been first duly sworn, testified as follows:

**DIRECT EXAMINATION**

**BY MS. CLEMONS:**

Q. Would you introduce yourself to the jury?

A. My name is Fessessework Guale, spelled F-E-S-S-E-S-S-E-W-O-R-K, G-U-A-L-E.

Q. And just because I want to refer to you as the right title, are you a doctor?

A. Yes.

Q. Okay. So you prefer Dr. Guale?

A. Yes.

Q. All right. So, Dr. Guale, what do you do for a living?

A. I'm hired by the Harris County Institute of Forensic Sciences, and I work as a toxicology analytical operations manager.

Q. Is that the same Institute of Forensic Sciences that Josie Hollowell works at?

1           A.    Yes.

2           Q.    Okay.  And you said you are an  
3 operations manager; is that correct?

4           A.    Yes.

5           Q.    What exactly does that mean?

6           A.    That means we have a lot of testing to  
7 perform, so all those performances are considered  
8 analytical operations.  So I oversee the cases the  
9 moment they come in and they go out, and I look to  
10 the overflow of the cases.  I supervise the  
11 employees' stuff and the daily activity of the lab  
12 would be monitored and I make sure that cases come  
13 in will be going out, all the work done properly.

14          Q.    Okay.  And can you take us through your  
15 educational background to get to the Institute of  
16 Forensic Sciences?

17          A.    I have a DVM -- that stands for Doctor  
18 of Veterinary Medicine -- and also a Master's degree  
19 in toxicology, and I'm also board certified by the  
20 American Board of Veterinary Toxicology and also by  
21 the American Board of Forensic Toxicology.

22          Q.    And so in addition to your education, do  
23 you also have training through your job or anywhere  
24 in the effects of alcohol and drugs on a body?

25          A.    Yes.

1 Q. Okay. And what does that training  
2 entail?

3 A. It includes all the chemical nature of  
4 the drugs and what the drug does to your body and  
5 what the body does to the drug and what are the  
6 outward performances and behaviors shown after the  
7 person doing the drug is examined.

8 Q. Okay. And have you ever testified  
9 before as an expert on the effects of alcohol or  
10 drugs on a body?

11 A. Yes.

12 Q. Would you say few or many times?

13 A. Many times.

14 Q. And does that include many times here in  
15 Harris County?

16 A. Yes.

17 Q. All right. Now, in kind of why we're  
18 here today, are you familiar with the case with the  
19 laboratory number 13-11740?

20 A. Yes.

21 Q. And how are you familiar with this case?

22 A. I have evaluated the case and signed it  
23 out, and my signature is on the right side of the  
24 report.

25 Q. What does it mean when you say you



1 evaluated the case?

2 A. One of the function of the expert, a  
3 reviewer, is to look into the case and to see all  
4 the -- all the testing is done properly and all the  
5 report satisfies what the requirement of the  
6 laboratory and the recording quality is maintained  
7 and no additional testing is required because the  
8 case is done appropriately by the SOP. So once I  
9 review that, then I will sign it out as to the  
10 correctness of the report.

11 Q. And SOP, is that standard operating  
12 procedures?

13 A. Yes.

14 Q. Okay. And so if your signature ends up  
15 on a report, that means that you basically made sure  
16 that everything was done correctly in this case?

17 A. Correct.

18 Q. And you said your signature is on the  
19 report in this case?

20 A. Yes.

21 Q. So, Dr. Guale, I kind of want to go  
22 through first talking about your training and  
23 experience what you have discovered on cocaine. Are  
24 you familiar with the effects of cocaine on the  
25 body?

1           A.    Yes.

2                   MR. STEPHENSON:   Judge, can we  
3 approach real quick?

4                   THE COURT:   Yes.

5                   (Proceedings at the bench:)

6                   MR. STEPHENSON:   Judge, I think  
7 we're about to get into the -- her opinion as to how  
8 cocaine or alcohol would have impacted the defendant  
9 and what the various substances -- how they interact  
10 and I would like to have a 702 hearing, a *Kelly*  
11 hearing, based on that outside the presence of the  
12 jury right now.

13                   THE COURT:   Okay.

14                   (Proceedings in open court:)

15                   THE COURT:   Folks, we're going to  
16 ask you to have a seat in the jury room for a few  
17 minutes.

18                   THE BAILIFF:   All rise.

19                   (Jury retired.)

20                   THE COURT:   Please be seated.

21                   MR. STEPHENSON:   May I, Judge?

22                   THE COURT:   Yes.

23                   MR. STEPHENSON:   Thank you.  
24  
25

**DIRECT EXAMINATION**

**BY MR. STEPHENSON:**

Q. Dr. Guale, I want to ask you a few questions about your opinion in this case with regard to the substances that were found in this sample. Okay?

A. Okay.

Q. You were about to talk about the impacts of cocaine on the human body, and particularly I'm guessing you have an opinion on as to whether or not it was impacting Jaime Flores at the time of driving in this instant case. Is that true?

A. True.

Q. Okay. And what is your opinion with regard to whether or not it was impacting him at the time of driving in this case?

A. I -- you want me to start going through the cocaine effects or --

Q. No, I just want to know if you have an opinion about whether or not this amount of cocaine that was found in his system would have been impairing or intoxicating at the time he was driving.

A. Well, that depends on additional information. The numbers really by themselves would

1 not tell me what -- how the person was impaired or  
2 the degree of impairment or anything like that. I  
3 can only say this person had taken this cocaine and  
4 ethanol and we found this much cocaine and ethanol  
5 in his system but at that time of the blood draw.

6 Q. Okay. Is it possible to, I guess, what  
7 we call extrapolate from that amount of cocaine and  
8 determine if it would have been impairing or  
9 intoxicating at the time he was driving?

10 A. We don't normally do extrapolation on  
11 drugs.

12 Q. Okay. So it's fair to say that you  
13 don't have an opinion as to how this cocaine was  
14 impacting him or if it was impacting him at the time  
15 of driving?

16 A. How and -- how I don't know but I can  
17 tell you it is impacting him but I don't know how.

18 Q. Okay. It could be improving his  
19 performance?

20 A. I can't comment until you give me  
21 specifically this is what he was doing. Could it be  
22 due to the cocaine or the alcohol?

23 Q. Okay. Specifically what's the half-life  
24 of cocaine? How long do you expect it to stay in  
25 the system?

1           A.   Well, a half-life is when cocaine --  
2   half of it is metabolized or changed it to be BE  
3   which is inactive form. For the cocaine it's about  
4   45 minutes.

5           Q.   Okay. And that varies, correct?

6           A.   Yes.

7           Q.   It could be as little as 10 or 15  
8   minutes?

9           A.   We have -- you have to differentiate  
10   between the effect of cocaine or what you  
11   subjectively feel or actually having the cocaine in  
12   your system.

13          Q.   Sure. Just -- just talking about --

14          A.   So you can feel -- you know, if you are  
15   injecting it, the cocaine, for instance, you can  
16   feel the effect right away; but that doesn't mean,  
17   you know, cocaine is going to be only there for a  
18   while, only for 15 minutes.

19          Q.   Right.

20          A.   But you can subjectively feel it and the  
21   cocaine is staying in your system are two different  
22   things.

23          Q.   Right. So you could have cocaine in  
24   your system and not be under the influence of the  
25   cocaine? It could not be impacting your mental and



1 physical faculties?

2 A. It always does.

3 Q. Always?

4 A. It always does.

5 Q. At any level?

6 A. It's just -- it's just how is the  
7 question; but there is a reason that somebody is  
8 taking it, to have a feeling, subjective feeling.  
9 Whether it's euphoria or dysphoria, that's an  
10 effect. So if you have that in your system, there's  
11 always an effect.

12 Q. Okay. But just in terms of having it in  
13 your system, it can range anywhere from what to  
14 what?

15 A. In the beginning, when you shoot  
16 cocaine, you will have euphoria. Okay. That's an  
17 unrealistic sense of well-being. You're happy.  
18 You're excited and, you know, you are energetic.  
19 And then when the time goes by, there's a called  
20 crash phase which is the amount of cocaine is going  
21 out of your system; and at that time at the crash  
22 phase, you're going to have different effects. You  
23 will be depressed. You will be fatigued. You will  
24 be sleepy or not able to sleep.

25 So these are opposite effects, the

1 euphoria and dysphoria, opposite effects; but it  
2 depends on which stage you are.

3 Q. Okay. Is it possible for you to  
4 hypothesize at what point those effects come into  
5 play?

6 A. I can tell from the result that the BE  
7 is there. That means he had metabolized it. So  
8 when you see BE, cocaethylene and ethanol, that  
9 means the body has got time to process the alcohol  
10 and the cocaine to create cocaethylene which is the  
11 two combined. So the body has metabolized some. So  
12 if you want me to say depending on how much he had  
13 put in his system, I can say this could be at a  
14 crash phase because it has metabolized.

15 Q. Okay. But you don't know how much any  
16 given person has taken?

17 A. No.

18 Q. So for you to say whether or not he's in  
19 the crash phase or the euphoria phase, you would be  
20 speculating?

21 A. Usually when you are doing, you know,  
22 even the minimum amount of, you know, cocaine, what  
23 you see at euphoric phase is ten times more than  
24 this. That's why I can look at the number and I can  
25 tell you that he would be most probably in the crash

1 phase.

2 Q. At the time this test was taken?

3 A. Yes.

4 Q. You can't speak to what it would have  
5 been an hour prior?

6 A. It could be he could be in euphoric  
7 phase or --

8 Q. Okay.

9 A. -- dysphoric phase.

10 Q. Don't know?

11 A. I don't know.

12 Q. There's not a set given blood  
13 concentration of cocaine that indicates impairment,  
14 correct? For instance, we have .08 in alcohol where  
15 you're presumed to have impairment, correct?

16 A. Oh, you're talking about the per se law  
17 that says, you know, if you have this much? No.

18 Q. Sure.

19 A. No.

20 Q. So all you can do is look at it and say  
21 that a person has it in their system, correct?

22 A. Yes.

23 Q. You can't say how it's impacting them  
24 and to what degree, correct?

25 A. Like, I could use this, I can tell you

1     what has been shown through, you know, performance  
2     and literature that, you know, the person could have  
3     been in euphoric phase or most probably in dysphoric  
4     phase. I can tell that; but how that affected him  
5     while he was driving, I need more information.

6             Q.    Okay.

7             A.    Yeah.

8             Q.    And what type of information would you  
9     need?

10            A.    Well, how was he driving? Was there any  
11     eyewitness account? Or what did he say or what  
12     happened before the stop and what was the stop for,  
13     you know, the reason for the stop.

14            Q.    So you would use the evidence for the  
15     case to match that up with the results that you see?

16            A.    Yeah.

17            Q.    So, for instance, because a person fell  
18     asleep, you would associate this with a dysphoric  
19     phase?

20            A.    It's highly probable, yeah, because the  
21     drugs are there.

22            Q.    Okay. There's no way to know for sure.  
23     These are all educated guesses, right?

24            A.    What I have is -- what I have is  
25     scientific fact and the result that it was in his

1 system, and I can relate that to what this result  
2 is.

3 Q. But generally speaking you would say it  
4 takes a maximum of what for cocaine, specifically  
5 cocaine, to go out of your system? From the time I  
6 take it to the time it's out, what's the range?

7 A. If you just -- generally, generally  
8 speaking, you need from five to seven half-lives,  
9 you know, half-lives for the -- you know, for the  
10 cocaine to disappear from your system. So probably,  
11 you know, after six hours, you may not see it in the  
12 blood but you may see it in the urine. So --

13 Q. Well, for six hours you're going to see  
14 the benzo -- the BE --

15 A. Uh-huh.

16 Q. -- but I'm talking about specifically  
17 cocaine.

18 A. It's about four hours. It depends on  
19 how much you took, though. You know, can be -- can  
20 last up to four hours or six hours depending on how  
21 much is in your system.

22 Q. Okay. Are you familiar with the NHTSA  
23 Drug and Human Performance Fact Sheets?

24 A. Yeah, I believe.

25 Q. They do studies on cocaine. They look



1 at things to figure out what the -- what -- how  
2 these drugs impact drivers.

3 A. Uh-huh.

4 Q. NHTSA says that the half-life of cocaine  
5 is short, approximately 0.8 to 0.2 hours. Six hours  
6 for BE, but cocaine 0.8 to 0.2.

7 A. Uh-huh.

8 Q. That's not four hours, right?

9 A. No. It says half-life.

10 Q. Right.

11 A. Half-life for cocaine is .8. This is  
12 almost .75 which is 45 minutes.

13 Q. Okay.

14 A. Plus or minus. This is a correct  
15 statement.

16 Q. Okay. So we're looking at 45 minutes?

17 A. 45 minutes of a half-life. So when it  
18 says a half-life, that means half of your -- half of  
19 the cocaine that was introduced is metabolized or  
20 changed it to another. So it takes four -- actually  
21 five to seven half-lives for the cocaine to get out  
22 of your system.

23 Q. Okay.

24 A. So according to that, it's actually  
25 right.

1           Q.    Okay.  And so when you have .02, there's  
2   no way to tell how much a person took though,  
3   correct?

4           A.    There are experimental studies that  
5   depending on which route you use, if you took  
6   about -- I can give you an example.

7           Q.    Sure.

8           A.    If you take -- take about, you know, 100  
9   up to 120 and you smoke that or you insufflate that,  
10   you may be at a .01, you know, and then 30 hours --  
11   30 minutes you may peak that level.  So you can use  
12   that as a model; but it's always variable whether  
13   you are, you know, injecting it or you are  
14   insufflating it or you are smoking it.

15          Q.    So it varies by your method of  
16   ingestion, correct?

17          A.    Yes, uh-huh.

18          Q.    Okay.  And there's no way to know unless  
19   a person admits to what they did, how they did it?

20          A.    Yeah.

21          Q.    So in applying the impacts, I mean,  
22   you're -- without knowing those facts, you can't  
23   specifically say how it -- how long it would have  
24   been impacting them?

25          A.    I can give you an example based on this

1 data.

2 Q. Okay.

3 A. And based on however -- you know, like,  
4 for instance, if he was injecting it, 20 milligrams  
5 or, you know, 30 milligrams, you injected it and  
6 then you'll have a maximum of about a .2 or .3 right  
7 away. And then if you look at this, you know,  
8 cocaine right here, it's .02 which is really, really  
9 ten times lower. So you can -- you can deduce from  
10 what has been seen experimentally and what's been  
11 seen in that subject and you can say -- or draw  
12 conclusion from there.

13 Q. Okay. Different people metabolize at  
14 different rates, right?

15 A. Correct.

16 Q. What about chronic users? Would chronic  
17 users' metabolism rates vary?

18 A. For chronic users, yes, you know,  
19 they -- they keep putting more drugs in them  
20 because, you know, the body would need more even in  
21 a short period of time, especially when you are  
22 ingesting. You know, the effect wanes after, you  
23 know, 15, 30 minutes and then you get the dysphoric  
24 phase and you start craving the drug and then you  
25 put it back again and then it goes on like that.

1       So --

2               Q.    Is it possible for cocaine to stay in  
3       the system of a chronic user for longer than it  
4       would be for a normal person?

5               A.    Yeah.

6               Q.    So it's possible they may not be under  
7       the impact of it.  It's just remaining in the system  
8       due to the continued use?

9               A.    Correct.

10              Q.    With regard to alcohol and its -- its  
11       impact on a person, in looking at this case, is this  
12       the case where -- is this a case where you've been  
13       asked to extrapolate?

14              A.    Yes, I have been asked to extrapolate.

15              Q.    Okay.  And can you give us that opinion  
16       and tell us what you're basing that extrapolation  
17       on?

18              A.    So, I was given information, the  
19       demographic information about the person and the  
20       first time of the drink and the last time of the  
21       drink.

22              Q.    Okay.  So you were given height, weight?

23              A.    Yes.

24              Q.    Age?

25              A.    Yes.

1 Q. Gender?

2 A. Yes.

3 Q. And what other factors about the  
4 individual when you say demographic information?  
5 Anything else?

6 A. Those are the ones you just mentioned.

7 Q. Those are the ones. Okay.

8 And what height were you given?

9 A. Huh?

10 Q. What height?

11 A. Okay. The height is 71 inches.

12 Q. Okay.

13 A. The weight in pounds is 200.

14 Q. Okay.

15 A. And the male, age 30.

16 Q. Okay. And then time of last drink?

17 A. Time of the last drink is 17th hour.

18 Q. Okay.

19 A. And time of first drink is 14th hour.

20 Q. Okay.

21 A. And time of a known BAC is 2:47 a.m.

22 Q. And that's .10?

23 A. .10 alcohol, yes.

24 Q. Okay. Anything else that you're given?

25 A. I don't remember if there's any other



1 additional information.

2 Q. Okay. And so were you able to reach an  
3 extrapolation number?

4 A. Yes.

5 Q. Okay. And what is that?

6 A. It's .122.

7 Q. .122. Okay.

8 Now, did they tell you the amount of  
9 drinks?

10 A. No.

11 Q. Okay. Okay. So the only thing you know  
12 is time of last drink, time of first drink?

13 A. No, you don't need the number of drinks  
14 really.

15 Q. Okay.

16 A. You can deduce that from the amount of  
17 alcohol that you find in a system.

18 Q. Okay. And, so, but what we're talking  
19 about here, 14:00, that's 2:00 o'clock --

20 A. In the afternoon.

21 Q. -- in the afternoon?

22 A. Uh-huh, yeah.

23 Q. Okay. P.m. And then the last drink is  
24 at 5:00 o'clock p.m., correct?

25 A. Yes.

1 Q. And the test is at 2:47 a.m.?

2 A. Yes.

3 Q. And so we're talking about from the time  
4 of the last drink to the time of the test roughly  
5 nine hours, almost ten hours?

6 A. Yes.

7 Q. Okay. And so extrapolating from 2:47  
8 a.m. to the time of driving at 1:31 -- well, I guess  
9 you said you can figure out how many drinks you  
10 think a person had. How many drinks are we talking  
11 about for a person to still be at .10 ten hours  
12 later?

13 A. Okay. Based on that information, the  
14 number of drinks was standard of this, almost 14.

15 Q. 14 drinks?

16 A. Uh-huh.

17 Q. Okay. And 14 drinks -- and so does it  
18 matter to you when a person last ate, whether or not  
19 they're on an empty stomach, any of that nature?

20 A. But there's too long of an hour. Really  
21 doesn't matter.

22 Q. Right.

23 A. Whether ate or not ate, you know, that's  
24 almost nine hours there.

25 Q. Right.

1           A.   Nine and a half hours.  So -- but then  
2   the extrapolation is just -- should be only just  
3   simple from 2:47 to 1:31.  Just --

4           Q.   And all you do --

5           A.   -- you know, zero-order kinetics and  
6   then at the elimination.  You use elimination rate.

7           Q.   He has to be in elimination because of  
8   the distance from his last drink?

9           A.   Yes, yes.

10          Q.   And so from there all you do is just  
11   take the average number of -- the average  
12   elimination rate and apply it to the number that you  
13   got.  That's it?

14          A.   Correct.

15          Q.   And you assume him to metabolize at the  
16   rate of standard rate?

17          A.   Eliminate at the standard rate.

18          Q.   Okay.  Which is?

19          A.   Which is .015.

20          Q.   And that's assuming that the last --  
21   time of last drink is accurate, correct?

22          A.   Correct.

23          Q.   If the time of last drink is within,  
24   say, an hour of the time of the driving, it would be  
25   possible that he would still be in the absorption

1 phase, correct?

2 A. Correct.

3 Q. And the time of driving is what matters  
4 here, correct?

5 A. Yeah, that's -- that's where we want to  
6 extrapolate to.

7 Q. Right.

8 A. Yeah.

9 Q. And if he's in the absorption phase  
10 still at the time of the test -- or at the time of  
11 driving, rather, it's certainly possible based on  
12 the number given here that he could be below a .08?

13 A. If he was absorbing, it's possible he  
14 could be below .1; but I don't know if it is  
15 possible to be below .08.

16 Q. Okay. Would it be lower?

17 A. Below .1?

18 Q. But you're not able to calculate how  
19 much lower?

20 A. Below that .1?

21 Q. Uh-huh.

22 A. It could be lower than a .1, but I don't  
23 know if it could be lower than .08.

24 Q. Okay. So assuming he had a drink at  
25 1:25 -- and we're looking at, I mean, five minutes

1 before driving, right? You're still within an hour  
2 and a half for standard potential absorption,  
3 correct?

4 A. Say that again. Let me see if I can  
5 come up with a better calculation here.

6 Q. Let's say he had a drink at 1:20 or  
7 1:25. His time of driving is 1:30, 1:31.

8 A. Okay. If he was drinking 1:20?

9 Q. Uh-huh.

10 A. At 1:20. And the time of driving was  
11 1:00 --

12 Q. 1:30, 1:31.

13 A. 1:31 or that means he was within ten  
14 minutes?

15 Q. Uh-huh.

16 A. Okay.

17 Q. And the test is at 2:47.

18 A. So suppose he was drinking one drink at  
19 the end and he was absorbing it for an average --  
20 average absorption we give one hour. So until  
21 2:00 -- if at 1:20, until 2:20 he was absorbing.  
22 Okay. So that would -- that would give him with  
23 elimination being .105. It would give him a .02  
24 alcohol level with just the average person  
25 absorption. So one hour, by 2:20, he would have

1 added about a .02; but it's also after the 2:20,  
2 he's going to be eliminating .15 -- .015. Really  
3 the only difference is going to be there is going to  
4 be only a .005.

5 Q. So that one hour and 20 minutes for  
6 absorption only would make a .005 bit of difference?

7 A. Uh-huh.

8 Q. But from your calculation, the same time  
9 given a time of last drink where he's in elimination  
10 raises it .02?

11 A. Yes, it would -- it would raise -- the  
12 elimination, we're just using a constant elimination  
13 rate which is a .015. So if you are absorbing at  
14 that time, the amount that you are absorbing and the  
15 amount you are eliminating should be different. You  
16 are absorbing .02, and you are eliminating .015.  
17 Whatever is left is what's accumulating in your  
18 body, in your system, which is .005.

19 Q. Okay.

20 A. When you subtract .02 and .015, it's  
21 going to be .005.

22 Q. So you're always -- if you're in  
23 absorption, you will always only have a change of  
24 downward of .005?

25 A. If you are absorbing or if you are



1 eliminating?

2 Q. If you are absorbing, it sounds like  
3 you're saying you will always have the same rate of  
4 decrease of .005 because you're always going to  
5 assume he's taking in .02 and eliminating .15 -- or  
6 .02 and --

7 A. I can show you all the data printout  
8 which is, you know, the computerized data printout,  
9 how much every 30 minutes, you know, you would  
10 eliminate based on scientific fact that was plugged,  
11 you know, in the formula. So --

12 Q. Okay. What computer program are we  
13 talking about?

14 A. It's a Backtracker computer program.

15 Q. Who created this program?

16 A. I -- I don't remember their names,  
17 but --

18 Q. Okay. Has it been peer reviewed?

19 A. I believe so.

20 Q. By who?

21 A. I don't remember the details.

22 Q. Okay. What's the -- and the name of it  
23 is just Backtracker?

24 A. Uh-huh.

25 Q. And it's a computer system -- this is

1       what you used to extrapolate in this case?

2               A.    Yes.

3               Q.    You don't know what's the -- what's the  
4       underlying scientific theory that it's based upon?

5               A.    Based on the Widmark Theory.

6               Q.    Okay.

7               A.    And there are other theories that are  
8       included.  There are six formulas included in this  
9       Backtracker software where you can get the average,  
10      not only depending on one.  You get the average from  
11      all of those.  Those are the Widmark, the Watson,  
12      the Forrest, the Seidl, Ulrich, and Mozayani.

13              Q.    Okay.  So you just plug in numbers to  
14      this computer software program, and then it tells  
15      you what it is?

16              A.    Yeah, but, you know, you don't -- you  
17      really don't have to use this for this particular  
18      case.

19              Q.    Okay.

20              A.    You can -- you know, you can use the  
21      average elimination time and just calculate by the  
22      hours from the -- from the time of the draw to the  
23      time of the driving.  You really don't have to use  
24      this.  It's a very simple calculation really.

25              Q.    Okay.  But in this case you did use

1       this?

2               A.    I did use it, yes.

3               Q.    Is it widely used in your -- do other  
4       laboratories use this software?

5               A.    I don't know who use it and who doesn't  
6       use it really, but we use it.

7               Q.    Okay. So you don't know if other people  
8       have accepted it as a scientifically valid software?

9               A.    I don't.

10              Q.    Do you know if it has a rate of error, a  
11       standard rate of error?

12              A.    It does. It's called uncertainty of  
13       calculations. That's what it does.

14              Q.    Okay. What is its uncertainty rate?

15              A.    Analytical method QA/QC range for this  
16       is .005. The range is .015. That means you -- you  
17       have a BAC in here which is .122. You could have it  
18       in a range between -- plus/minus .015 according to  
19       this calculation.

20              Q.    Okay. And so in this particular case  
21       you just plugged in the numbers into this database  
22       and it produced a result?

23              A.    Yes.

24              Q.    Okay. Just a few more questions, and I  
25       want to take you back to the cocaine.

1                   With regard to how cocaine impacts the  
2 body, what -- what is the underlying scientific  
3 theory that you're basing that -- what you said on  
4 from euphoria to dysphoria?

5                   A.    What is the scientific theory?

6                   Q.    Right. I mean, is there something that  
7 you're basing -- your knowledge is based on?  
8 Articles? What articles are you relating this to?

9                   A.    Oh, there are so many articles that are  
10 experimental papers that are out. There are so many  
11 articles, but I can send you a lot of them if you  
12 want.

13                  Q.    Okay. But you don't have any one --  
14 specific one that you relied upon?

15                  A.    No.

16                  Q.    Okay. Does it apply differently  
17 depending on the method of ingestion?

18                  A.    The numbers may vary by the method of  
19 ingestion or injections or ingestion or application.  
20 Yes, it's variable.

21                  Q.    And so without knowing the method of  
22 ingestion, it's difficult to ascertain a specific  
23 application of the cocaine to an individual; is that  
24 fair?

25                  A.    How he applied it, no. Yeah, that's

1 fair. I don't know.

2 Q. Okay. Is there a rate of error  
3 associated with how you determine the effects of  
4 cocaine on -- the amount of cocaine as related to an  
5 individual and impairment?

6 A. As we all are different, the impairment  
7 or the magnitude of impairment is really different.  
8 So --

9 MR. STEPHENSON: Pass the witness,  
10 Your Honor.

11 MS. CLEMONS: Just a few questions.

12 THE COURT: Okay.

13 **CROSS-EXAMINATION**

14 **BY MS. CLEMONS:**

15 Q. I just mainly want to talk to you about  
16 the computer program you just talked about. You  
17 said it actually is six different calculations it's  
18 using and that's on -- based on six different  
19 scientific theories, right?

20 A. Yes.

21 Q. So, like, the Widmark Theory, right?  
22 And there's a bunch of other ones, I know.

23 A. That's fine.

24 Q. But basically those theories that it's  
25 basing it on are all scientifically accepted widely

1 everywhere in the scientific community, right?

2 A. Correct.

3 Q. Okay. So really this program is kind of  
4 like a big calculator that y'all use, right?

5 A. Yes.

6 Q. And that's really all it is?

7 A. Yes.

8 Q. It's still relying on the scientific  
9 theory you can use by hand to do this extrapolation?

10 A. Correct.

11 Q. All right. And you actually said in  
12 this case you don't even really need it, right?

13 A. No.

14 Q. And if you were going to do this  
15 extrapolation by hand, would it be consistent with  
16 what the computer is telling you?

17 A. Yes.

18 MS. CLEMONS: Nothing further, Your  
19 Honor.

20 MR. STEPHENSON: Nothing further  
21 from the Defense, Judge.

22 THE COURT: Okay. Argument?

23 MR. STEPHENSON: We'll waive  
24 opening, Judge.

25 MS. CLEMONS: Judge, just from the



1       mere fact that she got up here and told us all about  
2       the effects of cocaine and the fact that she has a  
3       Master's and she's relied on studies show that she  
4       is perfectly able and qualified to talk about the  
5       effects of cocaine as well as the effects of  
6       alcohol. I think all of the questions we just got  
7       into really go towards the cross and weight, not  
8       admissibility.

9                       She is clearly qualified to talk  
10       about all of the effects she knows in her experience  
11       and training; and specifically if they're going to  
12       attack a program, just as she just said, it's really  
13       just a calculator. She can do the calculations by  
14       hand, and it is based on scientific theory that's  
15       widely accepted in the scientific community.

16                      MR. STEPHENSON: Just as far as the  
17       cocaine -- the opinion on cocaine is concerned, it's  
18       basically that it could be affecting or it could not  
19       be affecting him. We don't know how it was ingested  
20       so we don't know what the -- what the impact could  
21       be. It could be euphoric. It could be dysphoric.  
22       It could be a lot of different things. And without  
23       knowing a specific or having a specific way to apply  
24       it, the facts to the case, it would just mislead the  
25       jury and give them a wide range of possibilities.

1                   With regard to the alcohol, this  
2                   Backtracker that was used, we don't know if it's  
3                   peer reviewed. We don't know if anybody else uses  
4                   it. While it's based on six theories, we don't know  
5                   how it applies or combines those theories. I don't  
6                   think it meets the reliability test for  
7                   extrapolation.

8                   THE COURT: Reply?

9                   MS. CLEMONS: As for the cocaine,  
10                  specifically she said if she's provided the facts of  
11                  the case, she can apply them to cocaine. In fact,  
12                  she said if he's driving on the wrong side of the  
13                  road or sleeping, that would be consistent with  
14                  cocaine. So she did say she could apply it. It was  
15                  just never asked of her specifically because that  
16                  would go to the weight and not admissibility. She's  
17                  qualified to talk about it. She just needs  
18                  information provided to her.

19                  And, once again, she basically said  
20                  it's a calculator and it's consistent with her own  
21                  calculations that she does based on scientific  
22                  theory and in this case the Widmark Theory.

23                  THE COURT: Okay. Under the *Kelly*  
24                  and *Daubert* standards, I do find that Dr. Guale is  
25                  qualified to render an opinion and that the computer

1 analysis is scientifically reliable.

2 Any reason why we can't bring the  
3 jury back in?

4 MS. CLEMONS: No, Your Honor.

5 MR. STEPHENSON: No, Judge.

6 THE COURT: Okay. Their -- we'll  
7 go for about 20 minutes. I think their lunch will  
8 be here about 1:00.

9 Okay. We can bring them back in.

10 MS. CLEMONS: Judge, just so I can  
11 start e-mailing some of my witnesses because, like,  
12 they're starting to ask me about a time frame, how  
13 long are we giving them for lunch starting at 1:00?

14 THE COURT: Let's give them 30  
15 minutes.

16 MS. CLEMONS: Okay.

17 (Brief pause.)

18 THE BAILIFF: All rise for the  
19 jury.

20 (Jury seated.)

21 THE COURT: Okay. Please be  
22 seated.

23 **DIRECT EXAMINATION RESUMED**

24 **BY MS. CLEMONS:**

25 Q. Okay. Dr. Guale, so before the break,

1 we were talking about specifically cocaine. Based  
2 on your training that you've gone through, what are  
3 some of the signs or symptoms of somebody who is  
4 under the influence of cocaine that you can see?

5 A. Cocaine is a central nervous system  
6 stimulant. That's why it's being abused a lot,  
7 because it gives you that euphoric sense. That  
8 means it's a sense of unrealistic sense of  
9 well-being. You get excited. You get energetic.  
10 You get sociable. You know, you get to be alert and  
11 you -- you're on top of the world. That's the  
12 feeling that it gives you. You know, you're happy  
13 and talkative; and that's the euphoric phase. That  
14 gives you -- that's the stimulant phase that's going  
15 through your brain to affect that behavior that you  
16 have or the mood that you feel.

17 But as soon as it -- you know, its  
18 effect wanes down because the body would process it.  
19 It breaks it down to inactive compound. As soon as  
20 that happens through the time, the effect will wane  
21 down and then you get dysphoric phase which is  
22 really we call it the crash phase. The crash phase  
23 is when you feel really depressed and then you feel  
24 really fatigued and sleepy and, you know, you feel  
25 like you want that feeling more. That's why, you

1 know, people get addicted because of that feeling  
2 and up high and low. Those are some of the symptoms  
3 that you see because of that stimulant effect of the  
4 drug.

5 Q. Okay. What is cocaethylene?

6 A. Cocaethylene is a compound created by a  
7 combination of cocaine and alcohol. Usually people  
8 when they're doing alcohol and they're doing  
9 cocaine, you know, the cocaine -- while you are  
10 consuming the cocaine and you feel like you want to  
11 drink more and more and more because you don't feel  
12 that downward or the drunkenness feeling.

13 So it makes you drink more without  
14 knowing or getting drunk; but at the same time, the  
15 cocaine gets metabolized or the cocaine joining with  
16 ethanol forms a compound called cocaethylene which  
17 is actually the active one. It's not inactive.  
18 It's active. It's -- it has equal euphoric  
19 potential like cocaine. So it's really actually a  
20 dangerous thing that has got so many damaging things  
21 to your body; but as far as a euphoric effect of  
22 cocaine, it has important effect.

23 Q. Okay. And so I know you just touched on  
24 it a little bit but just to kind of go more into it,  
25 so what happens or what can happen to someone when

1       they start mixing cocaine and alcohol into their  
2       body at the same time?

3               A.    Yes.  They create this compound which is  
4       more active.  You know, if it was only cocaine, the  
5       compound wouldn't be there.  So they will have, you  
6       know, a short-lived high; but when you are doing it  
7       with alcohol, you know, the effect is going to be  
8       staying longer in your system.  You'll be high more  
9       for extended period than it would have been by  
10      itself, cocaine itself.

11               And then the other effect is you keep  
12      drinking and you keep drinking and you keep getting  
13      impaired more and more.  You don't realize that you  
14      are impaired because the cocaine is in your system,  
15      but you are actually really impaired.  So --

16               Q.    If you're mixing cocaine and alcohol,  
17      can you still get that crash that you talked about  
18      earlier where you're getting fatigued?

19               A.    Yes.  If you actually -- when the  
20      cocaine and the cocaethylene wanes off from the  
21      body, that's where it becomes really dangerous  
22      because the alcohol depressing effect and also the  
23      crash which is a depressing effect, they intensify  
24      each other and you get more impaired.

25               Q.    Now, one more substance that we're



1       seeing in this specific case -- and I apologize if I  
2       butcher it, but benzoylecgonine, what is that?

3               A.    Benzoylecgonine. Benzoylecgonine is one  
4       of the metabolite products -- or the cocaine changes  
5       into benzoylecgonine. This compound is not active.  
6       Once it changes -- cocaine changes to  
7       benzoylecgonine, the benzoylecgonine is dead,  
8       conjugated and excreted. It does not have any  
9       activity like the cocaine.

10              Q.    So I guess it means -- does it mean,  
11       like, the cocaine, it's been in your system and now  
12       it's kind of worked its way through and it's now  
13       becoming inactive? Is that right?

14              A.    Yes. Like, we call it the half-life.  
15       Like, you have cocaine that you introduce for 10  
16       milligrams circulating in your body just, for  
17       example, and then after, you know, 45 minutes of a  
18       half-life, half of that cocaine that's circulating  
19       in your body becomes benzoylecgonine or a different  
20       form of a drug and then eventually it will be  
21       cleared out of your system. That's what it means.

22              Q.    Now, in this case we're seeing cocaine  
23       and the inactive metabolite. So does that mean that  
24       if we're seeing this cocaine, is it active or  
25       inactive?

1           A.    The cocaine is still active.  It's part  
2 of the cocaine that you introduced is changed, but  
3 still you have still cocaine going on in your  
4 system.  So you have active cocaine.  You also have  
5 active cocaethylene.

6           Q.    So what does it mean when we're saying  
7 that the cocaine and cocaethylene is active?  Does  
8 that mean it's having an effect on somebody?

9           A.    Yes.  Cocaine does have an effect which  
10 is a central nervous system stimulant.  It goes to  
11 your brain.  You have receptors in your brain that  
12 changes your mood and your activities and your  
13 feelings and your emotions.  That's how you feel  
14 them.  And then once they -- you know, they detach  
15 from there, they go through circulation.  That  
16 cocaine comes back to your liver, and then the liver  
17 works on that cocaine to detoxify it.  In a word,  
18 that means it's a bad compound so it has to be  
19 detoxified.  It has to eliminate it, change it into  
20 inactive compound and then excrete it or eliminate  
21 it from your system.

22          Q.    Okay.  And how long does cocaine stay  
23 active in someone's body?

24          A.    The amount of the cocaine, it would  
25 reduce and reduce and reduce and reduce and it takes

1 about, you know, four hours for the cocaine to just  
2 actually get out of your system or change into  
3 another compound.

4 Q. Is there -- so are you familiar in Texas  
5 what the legal limit is as for alcohol?

6 A. Yes.

7 Q. And what is that?

8 A. .08.

9 Q. Is there something similar here in Texas  
10 for drugs such as cocaine?

11 A. No.

12 Q. Okay. In your experience and your  
13 training, is there a safe amount of cocaine to be in  
14 someone's body and get behind the wheel?

15 A. No.

16 Q. Why not?

17 A. Because there's always an effect. It  
18 would start out with good feeling, and then it would  
19 end up bad. So it's always, always dangerous to do  
20 cocaine.

21 Q. Okay. And so we talked about some of  
22 the signs and symptoms already. Are those signs and  
23 symptoms of cocaine, are those something that can  
24 affect a person's normal use of their physical  
25 abilities?

1           A.    Yes.

2           Q.    Is it something -- can cocaine also  
3 affect the normal use of someone's physical  
4 abilities?

5           A.    Yes.

6           Q.    Okay. And, I mean, does it matter the  
7 amount to see that effect?

8           A.    The amount determines how long you are  
9 going to be, you know, under the influence of that  
10 drug. Really, if you put a small amount in your  
11 system, you know, it would be cleared out in a short  
12 period of time and you will feel the high in a short  
13 period of time. But if you put a lot in your  
14 system, it would have actually more deleterious  
15 effects than actually only impairing you. There are  
16 also other physical and health problems that could  
17 be caused by cocaine.

18          Q.    So, the more you take it, it's going to  
19 affect you more; but if you just take a little bit,  
20 it can still have an effect on you? Is that what  
21 you said?

22          A.    Yes.

23          Q.    All right. In this case the fact that  
24 we're seeing the cocaine, cocaethylene and the  
25 inactive metabolite, what does that tell you in this

1 case?

2 A. Well, from the result here, the one  
3 thing is the person has taken cocaine and it could  
4 be -- at this time at this level, he could be at the  
5 crash phase of the time, the time span, since it was  
6 taken to -- since it would be eliminated out of your  
7 system. This could come from a large amount of  
8 intake but it would stay for a long period of time  
9 there or this could also be from a small amount of  
10 intake but it would stay in the body for a short  
11 period of time but it looks like, you know, from  
12 this number, I can deduce that it would be highly  
13 probably it is on crash phase.

14 Q. Now, would you be able to tell us by  
15 seeing just these results if it was impairing  
16 someone -- or in this case, so we have the results  
17 at 2:47; is that correct?

18 A. Yes.

19 Q. Okay. And in this case the crash would  
20 be at about 1:30, right?

21 A. Yes.

22 Q. Okay. Would you be able to tell us if  
23 this was affecting him at 1:30?

24 A. It's possible it was.

25 Q. Okay. And if somebody is driving on the

1 wrong side of the road, would that be consistent  
2 with the crash phase of cocaine?

3 A. If somebody is driving on the right --  
4 on the wrong side of the road, that indicates that  
5 the person was not attentive enough to keep his lane  
6 and maybe he was sleeping. So he was not paying  
7 attention, and he probably was fatigued or doesn't  
8 know where he's going. So this could all -- these  
9 are symptoms of impairment.

10 Q. And is that, I guess, consistent with  
11 cocaine being in your system?

12 A. Cocaine at the crash phase can cause  
13 that, yes.

14 Q. And is it also consistent with being  
15 under the influence of alcohol?

16 A. Yes.

17 Q. All right. And so kind of along those  
18 same lines, you said falling asleep at the wheel.  
19 Would that be consistent with being under the  
20 influence of cocaine in that crash phase?

21 A. Usually when you are not in a crash  
22 phase, you are alert and, you know, you can get  
23 engaged into different activity than sleeping; but  
24 if you are sleeping behind the wheel, it's most  
25 probably that you are in a crash phase.



1           Q.   All right.  Now, kind of moving on to  
2   the alcohol in this case, you already stated that  
3   the amount of alcohol or legal limit here in Texas  
4   is .08; and in this case is the amount of alcohol  
5   that we're seeing over the legal limit for Texas?

6           A.   Yes.

7           Q.   Okay.  Are you familiar with the  
8   absorption and elimination rates of alcohol for a  
9   person?

10          A.   Yes.

11          Q.   Okay.  What are -- what do you -- what  
12   does it mean when someone is absorbing or  
13   eliminating alcohol?

14          A.   Absorption is when, you know, you drink  
15   or you drink water or alcohol and then it would go  
16   through your stomach and then it would go through  
17   your intestine and then get absorbed -- most of the  
18   alcohol get absorbed from your intestines through  
19   the blood vessels and then it would get distributed  
20   throughout your body and then it would go to your  
21   brain and everywhere.  It acts.  So that's what  
22   absorption means.

23                For one drink, a person, it may take 30  
24   minutes to absorb all that and finish it; and then  
25   it would distribute and start elimination phase.  Or

1 for another person, it may take one hour to, you  
2 know, absorb it. So there's a range of absorption  
3 times that has been given on literature which the  
4 average would be one hour.

5 Q. Okay. And what about elimination?

6 A. Elimination is when you're -- you know,  
7 the alcohol gets into your liver, gets metabolized  
8 and gets, you know, broken into water and carbon  
9 dioxide and gets eliminated. For that, you know,  
10 process, the liver needs enzymes; and if that enzyme  
11 is very limited, so that's a limiting factor. So at  
12 a given time, there's only a specific amount of  
13 alcohol that can be eliminated. That's why we have  
14 a constant rate of elimination.

15 So in an average person, the elimination  
16 would be a .015 grams of alcohol per hour. So  
17 that's what's called elimination. That means the  
18 alcohol is getting out of your system.

19 Q. Okay. Can a person both be absorbing  
20 and eliminating at the same time?

21 A. Yes.

22 Q. Are you able to take someone's BAC at a  
23 certain time and figure out what it was based on  
24 absorption and elimination at a different time kind  
25 of going backwards?

1           A.    Yes.  We can do that for alcohol because  
2   there's a constant rate of elimination.  So you can  
3   use that per hour.  If this person is, you know, .1  
4   at this time and then he definitely was in the  
5   elimination phase, how much would it be two hours  
6   before.  So you can -- you know, you can add that --  
7   what the person would have eliminated within the two  
8   hours and come up with a number and a range what  
9   would it have been, you know, two hours before.

10           Q.   And in order to do that, do you need to  
11   know certain information?

12           A.    Yes.  Because everybody is --  
13   physiological makeup of everybody is different, you  
14   know, we process alcohol different.  So all the  
15   demographic information is very necessary, like the  
16   age, the weight and the height, you know, whether  
17   you ate food or not.  All those information -- and  
18   what time you start drinking, what time you finish  
19   drinking.  All those information are necessary to  
20   calculate this.

21           Q.    And you just said everybody kind of  
22   processes alcohol differently, right?

23           A.    Yes.

24           Q.    So how do you come up with this average  
25   elimination rate or absorption rate since everybody

1 kind of does it a little bit differently?

2 A. That's why, you know, there has been  
3 experiments -- several different experiments were  
4 performed; and the one, you know, formula that was  
5 deduced from those experiments -- because people  
6 just volunteer to do experiments on this because  
7 it's alcohol. So it's a pleasurable thing to do.

8 So we have so many experiments that was  
9 performed in humans and those data are collected and  
10 scientific formula was evolved from that. The  
11 oldest one would be Widmark formula. So that  
12 Widmark formula, you know, being used to calculate  
13 that, using all that data in statistical way and  
14 that formula was derived. It's been used so far in  
15 these calculations. So that's what we use to come  
16 up with that data.

17 Q. Okay. So -- and you also mentioned  
18 you're coming up with a range, right? Why are you  
19 coming up with a range versus, like, a certain  
20 number?

21 A. Yes. Because of the differences that  
22 has been seen. Like, for instance, the range for  
23 the elimination has been registered from .01 to  
24 .035. Of course, there are some outliers in here  
25 when you do the statistics; but when you see the

1     general population, with that general population  
2     rates is going to be the average. So that's what we  
3     use. How much or what the general population is  
4     showing as elimination rate is being used as an  
5     average, but there are extreme ends to it.

6             So if you want to calculate what would  
7     it have been if this person was a very slow  
8     eliminator or what would it have been if this person  
9     was a very fast eliminator, you can put that number  
10    in a range and give a result.

11            Q. Is that range, I guess, giving a benefit  
12    or a -- the opposite of benefit, like a negative to  
13    whoever you're kind of doing this range for?

14            A. Well, you are giving the benefit to that  
15    individual. You know, if he wasn't under, you know,  
16    a normal population, if he was exceptional, then you  
17    should give him the benefit of the doubt. This  
18    could be, you know, your result. So putting  
19    everything in a range gives the benefit of the doubt  
20    for the subject.

21            Q. All right. In this case were you able  
22    to get the information you needed in order to do  
23    what you called an extrapolation?

24            A. Yes.

25            Q. Okay. And what -- we went over that

1 information. One of the important things, right, is  
2 you need the time of the last drink?

3 A. You need the time of the first drink and  
4 the time of the last drink.

5 Q. And all this information, where -- I  
6 guess, basically you're relying on that information  
7 being correct, right?

8 A. Correct.

9 Q. Right. And that's the only way you can  
10 really do the extrapolation is to rely on that  
11 information, right?

12 A. Yes.

13 Q. All right. So in this case if you're --  
14 you're provided the time of last drink as what?

15 A. 17th hour.

16 Q. So that's about 5:00 o'clock, right?

17 A. Yes.

18 Q. Break that down.

19 Okay. And the time of the first drink?

20 A. Is 14th hour, which is 2:00 o'clock in  
21 the afternoon.

22 Q. And you were given all of the -- when  
23 you say demographic information, the height, the  
24 weight about the defendant, correct?

25 A. Yes.



1 Q. And in this case --

2 MR. STEPHENSON: Your Honor, I'm  
3 going to object about the defendant. This is a  
4 hypothetical scenario.

5 THE COURT: Overruled.

6 Q. (By Ms. Clemons) In this case were you  
7 able to take information from the facts provided in  
8 this case to do an extrapolation in this case?

9 A. Yes.

10 Q. Okay. And were you able to figure out  
11 what this defendant's BAC would have been based on  
12 that extrapolation at the time of the crash of about  
13 1:30?

14 A. Yes.

15 Q. And what was that?

16 A. .122.

17 Q. And in order to do this extrapolation,  
18 are you having to assume that he's in the  
19 elimination phase?

20 A. Yes.

21 Q. How long is it to -- average elimination  
22 phase for an individual?

23 Did I ask that a bad way? Basically how  
24 long typically does it take -- how long does it take  
25 someone to stop being in the absorption phase?

1           A.    Oh, how long does it take for the person  
2   to finish the absorption and get into elimination  
3   phase?

4           Q.    Correct.

5           A.    And the maximum recorded is two hours  
6   and 15 minutes.

7           Q.    And that's the maximum recorded, right?

8           A.    Yes.

9           Q.    What's the average?

10          A.    The average is one hour.

11          Q.    And in this case, if someone's having  
12   their last drink or says they have their last drink  
13   at about 5:00 p.m., at about 1:30 in the following  
14   morning they have to be in the elimination phase,  
15   right?

16          A.    Yes.

17          Q.    All right. And so the only time we'd  
18   really be looking at if they were still in the  
19   absorption period is if they were still drinking up  
20   to that -- within that two-hour, which is the  
21   maximum, or within that one-hour period?

22          A.    Yes.

23          Q.    Okay.

24                   THE COURT: Is now a good stopping  
25   point?

1 MS. CLEMONS: Yes, Your Honor.

2 THE COURT: Okay. I think their  
3 lunch is here.

4 THE BAILIFF: All rise for the  
5 jury.

6 (Jury retired.)

7 (Lunch recess.)

8 THE BAILIFF: All rise for the  
9 jury.

10 (Jury seated.)

11 THE COURT: Please be seated.

12 **DIRECT EXAMINATION RESUMED**

13 **BY MS. CLEMONS:**

14 Q. Dr. Guale, before the lunch break, we  
15 were talking about extrapolation, right?

16 A. Yes.

17 Q. Okay. So in this case you were able to  
18 extrapolate, correct?

19 A. Correct.

20 Q. And that was -- what was the result of  
21 your extrapolation?

22 A. .122.

23 Q. Okay. And that would be for at the time  
24 that the defendant was driving at 1:31, right?

25 A. Correct.

1           Q.   All right.  In this case were you able  
2   to come to an opinion about whether based on his  
3   results as well as your review of the entire case  
4   whether the defendant was impaired at the time of  
5   driving?

6           Or, I guess, a better question is were  
7   you able to come to a conclusion whether the actions  
8   of the defendant on that night were consistent with  
9   impairment as seen on the results of his blood  
10   alcohol test?

11          A.   Correct.

12          Q.   Okay.  And what did you base that off  
13   of?

14          A.   With the alcohol being greater than .08  
15   and the other -- the existence of cocaine and  
16   cocaethylene in his system.

17          Q.   Okay.  And the existence of cocaine and  
18   cocaethylene in his system, is that telling you --  
19   the fact that we're seeing that in his blood -- that  
20   it is impairing him?

21          A.   Yes.

22          Q.   Okay.  And we can't exactly say -- is it  
23   true that we can't exactly say which way it's  
24   impairing him, but it would be consistent based on  
25   the fact that he stated he fell asleep at the road

1       that he would likely be in the crash phase of that  
2       cocaine?

3               A.     Correct.

4               Q.     Would you be able to say is there any  
5       safe amount of cocaine or cocaethylene to be in  
6       anyone's system for it not to be impairing them  
7       while they're driving?

8               A.     There is no safe amount.

9               Q.     And so by the fact that cocaine is in  
10      someone's system, is it impairing them?

11              A.     Yes.

12                     MS. CLEMONS:   Pass the witness.

13                     MR. STEPHENSON:   May I, Judge?

14                     THE COURT:   Yes, sir.

15                     MR. STEPHENSON:   Thank you.

16                     **CROSS-EXAMINATION**

17       **BY MR. STEPHENSON:**

18               Q.     Dr. Guale, in discussing your  
19       qualifications with regard to alcohol and drug  
20       impacts on the body, you said you've got training on  
21       that subject, correct?

22               A.     Correct.

23               Q.     One of the things that you guys do is  
24       you go to a school called the Borkenstein School,  
25       correct?

1           A.    That's one, one is specialized training  
2    area, yes.

3           Q.    Have you ever been to that one?

4           A.    No.

5           Q.    You have not.

6                    You've done -- have you done research in  
7    the area of alcohol intoxication and drugs and the  
8    impact it has on the body?

9           A.    I do literature searches and reviews.

10          Q.    Okay. And are you familiar with a man  
11   named A.W. Jones?

12          A.    Yes.

13          Q.    He's one of the giants in the field of  
14   alcohol research. Is that fair?

15          A.    Correct.

16          Q.    And one of the things that he did was he  
17   wrote an article that says extrapolation is a  
18   dubious practice. Are you familiar with that  
19   article?

20          A.    Dubious practice when it is used with  
21   less information. If you have the information that  
22   you use, it could be used. It's just when you don't  
23   have enough information that it's dubious.

24          Q.    Okay. Well, what he says is you can  
25   never been absolutely certain a person has reached



1 the post absorption state, right?

2 A. You can based on what's on the  
3 literature. You can apply what's on the literature.  
4 If that person passed that or weighing more than  
5 that -- like, for instance, the recorded absorption  
6 time is two hours and 15 minutes. That's -- that's  
7 exceptionally long.

8 Q. Right.

9 A. But giving the benefit of the doubt, you  
10 have to use that; and, you know, if the person had a  
11 time more than that, that's absolutely fair to  
12 assume that he was in the elimination phase.

13 Q. So what you're saying is assuming what  
14 information you're given is true, you have to assume  
15 it's true, correct?

16 A. I have to assume it's true, yes.

17 Q. Even as improbable as it may be?

18 A. I don't know about that. I'm given an  
19 information. Based on that information, I perform  
20 the extrapolation because it can be performed.

21 Q. No training you've gotten deals with  
22 whether or not people are suspected of DWI or  
23 drinking and driving might tend to track back the  
24 time they last had a drink?

25 A. I don't know. That's not my job.

1           Q.    You just take the facts that you're  
2           given and apply them?

3           A.    Yes.

4           Q.    Okay.  Well, so, Dr. Jones says it's a  
5           dubious practice based on the lack of information.  
6           You say you have enough information here; but  
7           there's another man, Kurt Dubowski.  Dubowski also  
8           says not only that it's a dubious practice but -- I  
9           want to quote him.  "No forensically valid forward  
10          or backward extrapolation of blood or breath alcohol  
11          concentration is ordinarily possible in a given  
12          subject and occasion solely on the basis of time and  
13          an individual analysis result."

14          What information do you have here in  
15          this case?  What did you base it on?

16          A.    All the time that's given to me is there  
17          is a start time of the drink, the last time of the  
18          drink and the demographic data about the person; and  
19          from that, you know, there was almost nine hours  
20          between the stop of the drink and the analysis.  So  
21          it's fair to assume the person was eliminating.  So  
22          it's very clear here we can apply scientific data  
23          and just use extrapolation.

24          Q.    All right.  But what he says is you  
25          can't have a given subject and only base it on time

1 and individual result; and what I'm trying to figure  
2 out -- not the individual data because we know he  
3 says not a specific person, doesn't matter. All you  
4 had was the time of last drink?

5 A. Uh-huh.

6 Q. And first drink?

7 A. Yes.

8 Q. And the analysis, correct?

9 A. Correct.

10 Q. You didn't, for instance, factor in what  
11 he had to eat?

12 A. It doesn't matter because it's a long  
13 hour.

14 Q. Sure.

15 A. So absorption actually takes two hours  
16 because some people may eat and don't process that  
17 fast. That's why the absorption takes two hours.

18 Q. And that's kind of his point, though,  
19 right?

20 A. Yeah.

21 Q. Different people absorb and metabolize  
22 alcohol at different rates, correct?

23 A. Correct.

24 Q. You have to make a bunch of  
25 assumptions --

1           A.    No.

2           Q.    -- in order to get to this?

3           A.    In this case, there is no assumption  
4 because --

5           Q.    Okay. Well, you're assuming the  
6 information is truthful, correct?

7           A.    Yes.

8           Q.    And based on the assumption and the  
9 information you're given, there's a number of drinks  
10 that you would associate with a person who would be  
11 at this level for that three-hour window of  
12 drinking, right?

13           A.    That number of drinking -- the number of  
14 drinks are derived from how much would the person  
15 should have consumed to reach this level at this  
16 time. So when --

17           Q.    Right. And you're making an assumption  
18 about the amount of drinks in that particular time  
19 period, correct?

20           A.    Right. He must have drink. You  
21 know --

22           Q.    Sure.

23           A.    -- alcohol doesn't come from anywhere.

24           Q.    And for your --

25           A.    It comes from --

1           Q.    -- calculation to be correct, how many  
2           drinks would he have had to have in that three-hour  
3           window?

4           A.    It says 14.  14 drinks.

5           Q.    14 drinks?

6           A.    Uh-huh.

7           Q.    In a three-hour window would have gotten  
8           the result based on your calculation?

9           A.    Uh-huh.

10          Q.    Okay.  With regard to the cocaine that  
11          we're talking about, again, just like alcohol or any  
12          other drug, different people are impacted in  
13          different ways, correct?

14          A.    Correct.

15          Q.    Could have a euphoric result.  Could  
16          have a dysphoric result?

17          A.    Yes.

18          Q.    It has different rates of elimination  
19          from the body, cocaine does, right?

20          A.    Correct.

21          Q.    It has different impacts on a person  
22          based on how it is used, correct?

23                   For instance, if you ingest it via  
24          smoking it, that has a different impact than you  
25          would have inhaling it?

1           A.    It isn't -- it's for how long you're  
2 going to feel. That's -- that's the issue. How you  
3 introduce it is determining for how long you are  
4 going to feel the effect and how long it's going to  
5 take the body to --

6           Q.    So the length of the impact depends on  
7 how you ingest it?

8           A.    Yes, and how much you ingest it.

9           Q.    All of these things you don't know?

10          A.    I don't know.

11          Q.    So what you're saying is there's a range  
12 of possible effects, correct?

13          A.    Correct.

14          Q.    You can't say which one they are?

15          A.    I can't; but according to what the --  
16 based on this result and the metabolic profile of  
17 the cocaine, I can assume reasonably using a  
18 scientific fact that the person has started  
19 processing the cocaine. That's why you're seeing  
20 the metabolite. If you see the metabolite, that  
21 means the person has started processing and that's  
22 why the metabolite showed up and then the levels of  
23 the cocaine is waning down. It's going down.  
24 That's a small amount of cocaine that was found in  
25 his system. So it's reasonable for me to say he



1       could be in a crash phase.

2               Q.    Is it frequent in science that you  
3       assume things?

4               A.    Well, you assume things based on a  
5       scientific fact.

6               Q.    Okay.  And what scientific fact can you  
7       determine a person -- let me back up.

8                       Every person is different, right?

9               A.    Correct.

10              Q.    Cocaine impacts -- I mean, running a  
11       gamut of it could be in your system, it could be  
12       impacting you for 15 minutes, it could be impacting  
13       you for 30 minutes, it could not be impacting you,  
14       it could increase your performance, perception,  
15       cognitive skills, correct?

16              A.    In the beginning, yes.

17              Q.    You're assuming based on the facts  
18       provided to you by the District Attorney's Office  
19       how this is impacting a person, correct?

20              A.    Correct.

21              Q.    With regard to your job at the  
22       laboratory, what's your title?

23              A.    Analytical operations manager.

24              Q.    So you're in charge of all the  
25       personnel, staffing, everybody at the laboratory?

1 A. Yes.

2 Q. How long have you been doing that job?

3 A. Well, since 2013.

4 Q. Okay. You would agree with me in blood  
5 testing it's important to have good people working  
6 at the lab?

7 A. Correct.

8 Q. It's important that you trust those  
9 people?

10 A. Correct.

11 Q. It's important that their information be  
12 accurate?

13 A. Correct.

14 Q. It's important because there's so many  
15 different people handling a sample?

16 A. Yeah. Depending on the case, yes.

17 Q. And different people rely on different  
18 people to do the job. For instance, the one  
19 toxicologist might rely on another toxicologist to  
20 do the extraction?

21 A. Rely means?

22 Q. The person who does the actual run  
23 didn't extract the sample or the specimen?

24 A. Could be, yes.

25 Q. One person may do maintenance on the

1 instrument that the other person uses?

2 A. Yes.

3 Q. One person may prepare the specimens to  
4 be loaded into the tray for a run that's not the one  
5 who does the run, correct?

6 A. Correct.

7 Q. One of the people who dealt with this  
8 specimen was a person named Jameaker Dumas. Are you  
9 familiar with that person?

10 A. Yes.

11 Q. Is she employed at your laboratory?

12 A. Not now, but she was.

13 Q. Okay. How long ago was she fired?

14 A. I don't specifically remember.

15 Q. Okay.

16 A. But --

17 Q. Awhile back?

18 A. Awhile back, yeah.

19 Q. Okay. And as a result of her firing,  
20 you guys did a bunch of retesting?

21 A. When we were requested to retest, yes.

22 Q. Okay. And the reason she was fired is  
23 she takes a proficiency exam, correct?

24 A. That's not the reason that she was  
25 fired.

1           Q.    Right.  She was fired because she got  
2   the answers ahead of time?

3           A.    No.  The reason she was fired has  
4   nothing to do with her analytical work.

5           Q.    Okay.  It had to do with her honesty?

6           A.    I can only tell you it's not because of  
7   her analytical work.

8           Q.    Okay.  Was she truthful about the  
9   mistakes she made?

10          A.    The mistakes she made where?  I can't  
11   answer that question.

12          Q.    Okay.  You were obviously involved with  
13   her firing?

14          A.    Involved with what?

15          Q.    Were you involved with her firing?

16          A.    No.

17          Q.    In the investigation?

18          A.    No.

19          Q.    Okay.  When you have someone who is  
20   fired from your laboratory, do you want to make sure  
21   that that doesn't happen again?

22          A.    As far as I'm concerned, what I have,  
23   the analysts, they're analysts that perform the job  
24   in the lab.  They're truthful.  That's all I know.

25          Q.    Okay.  And if they're not, you don't

1 want them working at the lab?

2 A. You don't want people who are not  
3 truthful to work in the lab.

4 Q. And did y'all do training to make sure  
5 that this type of behavior didn't happen again?

6 A. Everybody does have to be ethical  
7 standards and everyone will be read that ethical  
8 standards and everyone knows what ethical standards  
9 forensic toxicologist must have and everyone  
10 complies with that.

11 Q. Okay. And it's fair to say that  
12 Ms. Dumas didn't meet that ethical standard?

13 A. I can't comment on that.

14 Q. But she was fired?

15 A. I was not involved.

16 Q. Okay. Even though you're in charge of  
17 the personnel?

18 A. Yeah, but there's higher management. So  
19 higher than I do.

20 Q. Oh, there is one thing I forgot to ask  
21 you about.

22 So making assumptions about the time of  
23 his last drink being 5:00 o'clock, right?

24 A. I didn't make that assumption. That was  
25 given to me.

1           Q.    Right.  But you have to operate under  
2   the information you're given, right?

3           A.    Yes.

4           Q.    Let's say you were given information  
5   that his last drink was ten minutes before the  
6   accident.  Would it be possible that he would be in  
7   the absorptive phase?

8           A.    Yes.

9           Q.    And if he's in the absorptive phase,  
10  that would reduce his result rather than raise it?

11          A.    It would reduce it.

12                   MR. STEPHENSON:  Pass the witness,  
13  Your Honor.

14                   MS. CLEMONS:  Just a few questions,  
15  Your Honor.

16                               **REDIRECT EXAMINATION**

17   **BY MS. CLEMONS:**

18           Q.    Dr. Guale, in regards to Jameaker Dumas,  
19  you weren't involved in her firing, correct?

20          A.    No, I was not.

21           Q.    But you are aware that it had nothing to  
22  do with anything when it comes to testing of samples  
23  in the lab, correct?

24          A.    Yes, I know that.

25           Q.    Okay.  And, in fact, it just had



1 something to do with her applying for a different  
2 job, right? If you're aware.

3 A. Something to do with what?

4 Q. Her applying for a different job,  
5 something in an interview, correct?

6 A. I -- I can't comment on that.

7 Q. Okay. But if it had something to do  
8 with the way she analyzed something or anything like  
9 that, you would know, correct?

10 A. If it was -- if she was involved with  
11 anything analytical, yes, I would be involved.

12 Q. And you don't know anything about that,  
13 so we can assume that she -- it had nothing to do  
14 with anything for testing?

15 A. I can assure you there's nothing related  
16 to her laboratory work.

17 Q. And Defense counsel had mentioned that  
18 when y'all were requested, y'all did go ahead and  
19 retest some samples. Did that have to do with the  
20 availability of her testimony?

21 A. Yes. The reason that we are retesting  
22 it is because she's not available to testify.

23 Q. Did it have anything to do with the  
24 accuracy of those results?

25 A. No.

1           Q.    In this case as part of your job, you  
2 reviewed all of the procedures done in this case and  
3 the testing in this case, right?

4           A.    Correct.

5           Q.    And did Ms. Dumas have anything to do  
6 with the testing in this case?

7           A.    No.

8           Q.    Okay. Do y'all have -- I guess the best  
9 word I can give is fail-safes at the -- in the lab  
10 when it comes to testing to make sure all of the  
11 procedures are correctly followed and y'all are  
12 testing the correct blood?

13          A.    Yes.

14          Q.    And what are those procedures?

15          A.    We -- we keep the chain of custody,  
16 electronic chain of custody that by of the samples  
17 tested, when they were tested, when they were under  
18 custody of somebody or whoever is the analyst and  
19 when the testing was done and then when, you know,  
20 the testing was recorded. So all that is included  
21 in our chain of custody electronically.

22          Q.    And you review that, correct, before you  
23 sign off on any lab report?

24          A.    Correct.

25          Q.    And if something was wrong or something

1 had been not done correctly, you wouldn't sign off  
2 on that lab report?

3 A. No, I would not.

4 MS. CLEMONS: Okay. Nothing  
5 further, Your Honor.

6 MR. STEPHENSON: Just briefly,  
7 Judge.

8 **RECROSS-EXAMINATION**

9 **BY MR. STEPHENSON:**

10 Q. Dr. Guale, have you ever testified that  
11 one of your laboratory tests was bad, was incorrect,  
12 was inaccurate?

13 A. Have I ever testified on a result that's  
14 inaccurate?

15 Q. Right.

16 A. No.

17 MR. STEPHENSON: Nothing further,  
18 Judge.

19 MS. CLEMONS: Nothing further.

20 THE COURT: Okay. Thank you,  
21 Doctor. You may step down.

22 May she be finally excused?

23 MS. CLEMONS: Yes, Your Honor.

24 MR. STEPHENSON: She may, Judge.

25 \* \* \* \* \*

1 THE STATE OF TEXAS :

2 COUNTY OF HARRIS :

3  
4 I, LINDA HACKER, Official Court Reporter  
5 in and for the 177th District Court of Harris  
6 County, Texas, do hereby certify that the above and  
7 foregoing contains a true and correct transcription  
8 of all portions of evidence and other proceedings  
9 requested in writing by counsel for the parties to  
10 be included in this volume of the Reporter's Record,  
11 in the above-styled and numbered cause, all of which  
12 occurred in open Court or in Chambers and were  
13 reported by me.

14 I further certify that this Reporter's  
15 Record of the proceedings truly and correctly  
16 reflects the exhibits, if any, admitted by the  
17 respective parties.

18 I further certify that the total cost for  
19 the preparation of this Reporter's Record is  
20 \$\_\_\_\_\_ and was paid or will be paid by  
21 Harris County.

22 WITNESS MY OFFICIAL HAND on this the 12th  
23 day of September, 2016.

24 /s/ Linda Hacker  
25 LINDA HACKER, CSR No. 4167  
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1 THE WITNESS: Sure.

2 THE COURT: Then we'll address that  
3 issue.

4 THE WITNESS: Thank you.

5 MR. SCHNEIDER: Dr. Guale is our next  
6 witness.

7 THE COURT: Okay.

8 MR. SCHNEIDER: But we'd like to get  
9 him back to --

10 THE COURT: Well, I know; but we'll  
11 talk about it when we take a break. So, who's next?

12 MR. SCHNEIDER: Dr. Guale.

13 MS. LOGAN: May we approach, Judge?  
14 No, Judge. I'm sorry. I withdraw my request to  
15 approach.

16 THE COURT: Right this way, ma'am.  
17 Raise your right hand to be sworn.

18 (Witness sworn.)

19 THE COURT: Have a seat.

20 Mr. Barnett.

21 FESSESSESEWORK GUALE,  
22 having been first duly sworn, testified as follows:

23 DIRECT EXAMINATION

24 Q. (BY MR. SCHNEIDER) Would you please state  
25 your name?

1           A.     Fessessework Guale.

2           Q.     And if you could, please spell your last  
3 name?

4           A.     G-U-A-L-E.

5           Q.     And, Doctor, would you please tell the  
6 ladies and gentlemen of the jury what you do for a  
7 living?

8           A.     I am a -- right now I hold a position in  
9 the Institute of Forensic Sciences as an assistant  
10 chief toxicologist.

11          Q.     And tell us about your educational  
12 background as it pertains to your current job.

13          A.     I earned my Doctor of Veterinary Medicine  
14 Degree and I earned my Master of Science Degree in  
15 Toxicology and I am a board certified forensic  
16 toxicologist.

17          Q.     Now, as it pertains to -- how long have you  
18 been a toxicologies?

19          A.     Twenty years.

20          Q.     And just in a -- what is a toxicologist?

21          A.     A toxicologist is a person who's studied  
22 about the effects of drugs and other poisons and  
23 chemicals on the human body. It deals with how the  
24 drug or the toxins process in your body. And once  
25 it's processed in your body, what kind of effect it



1 causes to your body or what that poison do to your  
2 body. That's the study we call "toxicology."

3 Q. Now, on this particular case, you did not  
4 do the toxicology report or the toxicology analysis  
5 of Joel Avila, did you?

6 A. No.

7 Q. But you've done -- you have reviewed those  
8 records, haven't you?

9 A. No. I did not review any of these records  
10 at that time when we have this data.

11 MR. BARNETT: May I approach, your  
12 Honor?

13 THE COURT: Yes, sir.

14 Q. (BY MR. BARNETT) And I believe it is -- I  
15 believe it's State's Exhibit 99. It is. And,  
16 Doctor, I want to hand you what's already been  
17 admitted into evidence which is State's Exhibit 99.  
18 And this is an autopsy report of a Joel Avila. And  
19 if you -- and go ahead and look at whatever you like.  
20 The last page is the toxicology report.

21 A. Yes.

22 Q. I'd like to direct your attention to that.  
23 And please take a moment to review it, if you would.

24 A. (Complies.)

25 Okay.

1 Q. And I'd like to display the last page, if I  
2 could figure out how to work this.

3 MS. LOGAN: Just put it on there.

4 MR. BARNETT: It's on?

5 MS. LOGAN: Yes.

6 Q. (BY MR. BARNETT) Doctor, I'd first like to  
7 direct your attention to the ethanol in this case.  
8 And looking at the last page of State's Exhibit 99,  
9 the .10, is that grams per -- what does "D.L." stand  
10 for?

11 A. It's grams per deciliter. A deciliter is  
12 hundred milliliter.

13 Q. What can you tell us about a person who has  
14 that level of ethanol in their blood?

15 A. Well, this is a level which is above the  
16 legal limit, which is 0.08. That means at that  
17 level, a person should not operate a motor vehicle.

18 Q. And let's move away from operating a motor  
19 vehicle. How much alcohol -- let's say a person  
20 weighs between 145 and 150 pounds. How many beers  
21 would a person have to consume in one hour to get  
22 their ethanol level up to a .10?

23 A. Well, there are so many factors involved.  
24 You know, you cannot just come up with a simple  
25 calculation like that because there's an issue of

1     absorption, there's that -- like you said, the  
2     person's weight and height, whether there's food, if  
3     he was drinking with food or it's an empty stomach,  
4     or how long it takes to get to this level. It's so  
5     variable. So, that's not a simple calculation you  
6     can do unless you have the facts.

7             Q.     You would need to -- because if a person  
8     has a full stomach, it's going to take longer for it  
9     to absorb into their bloodstream?

10            A.     Yes. Yes. That affects the absorption.  
11     So, it takes longer. So, if it is an empty stomach,  
12     it gets absorbed faster. So, there are so many other  
13     factors. You know, what kind of drink. The type of  
14     the drink matters. And whether -- how many -- you  
15     know, whether the drink has got sugary substance in  
16     it or a hard liquor also matters. So, there are so  
17     many factors that you cannot just simply calculate  
18     that.

19            Q.     Is it possible without affecting the  
20     integrity of your answer to give us a ballpark figure  
21     of how many beers in an hour it would take for a man,  
22     145, just ballpark, give or take, a man 145 pounds to  
23     consume in one hour to achieve this level?

24            A.     From five to six beers.

25            Q.     And that would have to be in an hour,

1 correct?

2 A. Yes.

3 Q. And then after that hour, you would do  
4 what's called "eliminate" so much of that alcohol  
5 level per hour, wouldn't you?

6 A. Yes.

7 Q. And would it be safe to say you would have  
8 to drink at least, say, one beer per hour to offset  
9 the amount of alcohol you were eliminating per hour?

10 A. It can -- yeah, it can happen that way. Or  
11 it may be either more hours it may take to eliminate  
12 it or more hours takes to absorb it. Like, it's all  
13 conditional. We're just giving you just a ballpark  
14 of it.

15 Q. It can fluctuate a lot.

16 A. It can really, really fluctuate a lot.

17 Q. But basically somewhere in the ballpark of  
18 five or six beers to get there?

19 A. Yes.

20 Q. Now, what is -- going to the second line in  
21 this report, the coca -- could you pronounce that  
22 word for me?

23 A. Cocaethelyne.

24 Q. All right. Thank you.

25 A. In other words, it's ethyl cocaine.

1 Q. What can you tell about the .10 milligrams  
2 per liter of cocaethelyne?

3 A. The presence of cocaine -- as I said,  
4 cocaethelyne is ethyl cocaine. This is produced by  
5 the presence of both ethanol and cocaine. If you  
6 just do only cocaine, you would not see cocaethelyne.  
7 So, that indicates -- this cocaethelyne is produced  
8 by combination of ethanol and cocaine.

9 Q. After the two substances are consumed?

10 A. Taken together.

11 Q. And does that have -- is that a byproduct?

12 A. Yes.

13 Q. And does this byproduct have an effect on  
14 the human body?

15 A. Yes.

16 Q. And what type of byproduct does that have?

17 A. It is active and if you have both ethanol  
18 and cocaine together and you will have a very high or  
19 intense euphoria than you would have separately. So,  
20 the fact that having that together makes a person  
21 feel more euphoric.

22 Q. And does that have them -- does that move  
23 them more away from the way their mind would normally  
24 be?

25 A. Usually, yes, these are mind-altering

1 compounds. Both alcohol and cocaine would affect  
2 your mental ability.

3 Q. Now, moving down to the next line, the .17  
4 milligram per liter of cocaine. What can you tell  
5 from this result?

6 A. Well, the person was doing cocaine.

7 Q. Is that a high level of cocaine?

8 A. Yes.

9 Q. And when you say "high level," what do you  
10 mean by that?

11 A. Well, it's a level you can get it with  
12 repeated usage.

13 Q. You mean there's a buildup?

14 A. Yes, it's a buildup. Or sometimes you can  
15 get one time; but, you know, it's a big dose. It  
16 could be a one-time big dose or repeated small doses.

17 Q. So, in your professional opinion, did this  
18 person -- to achieve the .17 milligrams per liter of  
19 cocaine, did this person consume large quantities of  
20 cocaine?

21 A. He might have consumed large quantities of  
22 cocaine at once, or he might have done it in small  
23 amounts repeatedly. It can happen both ways.

24 Q. And in your professional opinion, would a  
25 person with this level of cocaine be not acting



1 normal?

2 A. Yes.

3 Q. And this person would be very stoned, if  
4 you will?

5 A. Well, there are different levels before  
6 that -- if you -- stoned means -- that means you are  
7 not you -- you know, you're not aware of your  
8 surroundings, right?

9 Q. Correct.

10 A. Am I using the right terminology here for  
11 stoned?

12 Q. Well, I'm not sure that's a medical term.

13 A. Well, I'm trying to come up with, you know,  
14 best understandable term. So, if you're stoned, that  
15 means you're not aware of your environment. Yes, you  
16 can get to that level with this amount of cocaine.

17 Q. And, Doctor, is it considered dangerous to  
18 mix alcohol and cocaine in the same person at the  
19 same time?

20 A. It increases the danger, yes.

21 Q. Okay. And tell us what -- now, the next  
22 level down on the chart -- well, I guess there's --  
23 what is that word?

24 A. The non-detected? Oh. Benzoylcegonine.  
25 Sorry.

1 Q. Yes.

2 A. Yes.

3 Q. Tell the ladies and gentlemen what that is.

4 A. That's what the cocaine changes into. Like  
5 I said earlier, when you take drugs or any  
6 medication, your body process it to another compound.  
7 It will either process it to inactive compound or  
8 more active compound. So, this is inactive compound  
9 that's metabolized from cocaine. So, this is in a  
10 form that should be excreted out of your body.

11 Q. Okay. So, this has already been, say,  
12 processed through the body?

13 A. Yes.

14 Q. And does this tell us that the person --  
15 what does this tell us about their cocaine use in the  
16 several hours prior?

17 A. Well, the amount -- you can see the amount  
18 and you can tell that, you know, this person has  
19 been, you know, taking cocaine for a little bit  
20 longer time because it accumulates because it does  
21 not come out of your body that fast, as fast as the  
22 cocaine does. So, it stays in your system longer.  
23 So, the more amount you have this in your system,  
24 that means the more cocaine you have had before.

25 Q. All right. So, if I'm understanding you

1 correctly -- and correct me if I'm not -- this person  
2 has done a heck of a lot of cocaine that this test  
3 was run on? Is that -- would you consider that a  
4 true statement?

5 A. I can say this person has done cocaine  
6 either repeatedly for the last five, ten hours or he  
7 took one bolus or big dose.

8 Q. Short in time before he was tested?

9 A. This test was done after the person died,  
10 and this is because this is a post-mortem sample.

11 Q. Okay. I guess -- now, another thing  
12 that -- would you -- what happens -- if a person  
13 ingests cocaine and then they die and then they are  
14 tested sometime after death, can the level of cocaine  
15 come down during the time in which they are deceased?

16 A. That all -- cocaine is -- it's known that  
17 it's unstable. After death it may go spontaneous  
18 hydrolysis. And depending on how long the person has  
19 been dead and when it was autopsied and sample was  
20 collected, the time matters and how much cocaine is  
21 lost during that time and also whether that person or  
22 the body was refrigerated or was it, you know -- the  
23 temperature where the body was also matters. And  
24 there are so many factors that play there as to how  
25 much cocaine was lost while the person was dead

1 between the death and the autopsy.

2 Q. So, in other words, when was this test  
3 done? Can you tell by looking at these records?

4 A. The date it was received was 12/18/2007.

5 Q. Now --

6 A. I don't know the time of death. All I know  
7 is when we received the sample.

8 Q. All right.

9 A. Okay?

10 Q. If the -- hypothetically speaking, if this  
11 person died around 6:00 a.m. on February 16th, two  
12 days before -- December 16th of 2007, is it possible  
13 that the levels of cocaine are lower at the time of  
14 test than they were at the time of death?

15 A. It depends how the body was preserved. I  
16 have no idea how the body was. And like I said, you  
17 know, there are earlier points that you have to  
18 consider between the time of death, when the person  
19 dies, how was his body preserved. You know, if he  
20 was preserved before the autopsy and the autopsy is  
21 done and as soon as the autopsy is done, we preserve  
22 the samples right away. They are refrigerated. So,  
23 if it's a body that has been laying out for a long  
24 time before somebody noticed it or before somebody  
25 knows what time they're dead, there's a time gap

1 there that you don't know what happens at that time.

2 Q. So, you would need more information?

3 A. (No response.)

4 Q. Is that -- you would need more information  
5 to answer that question?

6 A. Yes. Yes.

7 Q. Doctor, is it -- having reviewed these  
8 levels of alcohol and cocaine and the byproduct  
9 cocaethelyne in this person, based on your studies  
10 and your experience in this area of toxicology, do  
11 these levels -- can they tend to make a person more  
12 aggressive and more violent than they normally would  
13 be?

14 A. They tend to make you aggressive. That's  
15 one of the side effects of cocaine is, you know, you  
16 become agitated and aggravated and become violent.  
17 But that also depends on how you -- are you  
18 experienced or not. You know, that may happen to  
19 people who does not do it so often. Or chronic users  
20 may not do that because, you know, their body adapted  
21 it. So, there's also another factor. But it's a  
22 common fact that, you know, cocaine makes you  
23 violent.

24 Q. And as you said before, getting back to you  
25 saying this could have been a large dose, when you

1 say "large dose," what amounts are you talking about?

2 A. I don't know. I just -- I don't know how  
3 people -- I don't use cocaine so to tell you how  
4 much. So, you know, I can tell you what  
5 experimental -- experimentally how much in grams.  
6 But that doesn't mean anything how much that is.  
7 So...

8 Q. Could these levels of -- we talk about  
9 cocaine and alcohol together can make you aggressive  
10 and violent. Could these levels make a person  
11 aggressive and violent?

12 A. Depending on the person. It could or could  
13 not.

14 Q. Now, you also have -- you're familiar with  
15 marijuana, aren't you?

16 A. Yes.

17 Q. And based on your studies, does marijuana  
18 make a person aggressive?

19 A. No.

20 Q. And when you say "no," what does it do?

21 A. Well, marijuana is a kind of substance that  
22 gives you a high, like this one; but it make you --  
23 it's a hallucinogenic compound that, you know, you  
24 will have hallucinations and you will have paranoia  
25 and you will have -- actually when you do -- when you



1 are paranoid, you tend to be, you know, hiding from  
2 somebody. Somebody's coming to kill you and those  
3 kind of thoughts. You know, you would be afraid of  
4 people and start segregate yourself somewhere and  
5 stuff like that. It does not give you the aggression  
6 like the cocaine does.

7 Q. And, so, does it make a person mellow?

8 A. I think given time they may be active  
9 because they feel about themselves that they are on  
10 high; but, you know, they would not be as  
11 aggressive -- they would not be aggressive or  
12 aggravated that much, you know, to be violent like  
13 cocaine does.

14 Q. And are you familiar with MDMA?

15 A. Yes.

16 Q. And is that commonly called "ecstasy"?

17 A. Yes.

18 Q. And are you familiar with the effects of  
19 ecstasy or MDMA on a person?

20 A. Yes.

21 Q. And tell the ladies and gentlemen what  
22 effects ecstasy has on a person as far as being  
23 aggressive or nonaggressive.

24 A. Well, ecstasy and cocaine, they do have  
25 similar kind of, you know, mechanical action in the

1 body, how you get with MDMA. And these are all  
2 central nervous system stimulants. They stimulate  
3 your brain. You become hyperactive. You know,  
4 especially in MDMA cases, you would have a distorted  
5 perception of your surrounding. And what it does is,  
6 you know, you would be more actually inclined to be  
7 positively affected. Your mood -- your mood would be  
8 positively affected. You want to talk too much and  
9 you want to get very affectionate with other people,  
10 you know, because you have a perception, a feel good  
11 perception around you. Even though it is the same as  
12 cocaine as being, you know, central nervous system  
13 stimulant, the way you're acting is completely  
14 different.

15 Q. And I guess hence the name, ecstasy?

16 A. Uh-huh.

17 Q. And, so, that makes people just real happy  
18 about all their surroundings?

19 A. Yes. They do feel happy and affectionate.  
20 You know, they just want to communicate more, to be  
21 more friendly, and feel good about themselves, too.

22 Q. And not aggressive?

23 A. No.

24 Q. Doctor, reviewing the toxicology report,  
25 there are three different types of cocaine products

1 in this person's body; is that correct?

2 A. Correct.

3 Q. And that would be the -- one, the cocaine  
4 itself, correct?

5 A. Correct.

6 Q. Two, the byproduct of cocaine and alcohol?

7 A. Cocaethelyne.

8 Q. And, three, the -- kind of the used  
9 cocaine?

10 A. Benzoyllecgonine, yes.

11 Q. And does the fact that there are three  
12 different byproducts -- or there's cocaine in two  
13 byproducts; is that right?

14 A. Yes.

15 Q. Does that indicate three different usages  
16 of cocaine?

17 A. No. It's only one use.

18 Q. That could all be used at one time?

19 A. Yeah. Remember, all these three -- we are  
20 detecting cocaine. Cocaine was what is ingested, or  
21 the cocaine was what was snorted or smoked or  
22 injected. You know, four different ways. That's one  
23 product that was injected. But the body changed it  
24 into two different metabolites. One is a  
25 cocaethelyne, which is the metabolite that's formed.

1 between alcohol and cocaine. And the other one is  
2 that was derived from cocaine itself and become  
3 inactive. So, the product is only one here. And the  
4 alcohol is another one. Alcohol and cocaine were  
5 ingested. And now we have four products, the four  
6 different products that we saw in the blood.

7 Q. After it's processed by the body?

8 A. Yes.

9 Q. Thank you, Doctor.

10 MR. BARNETT: I pass the witness, your  
11 Honor.

12 THE COURT: Anybody need a break at  
13 this time? Everybody okay for, like, another 15 or  
14 20 minutes or so? Okay.

15 MS. LOGAN: I'll be quick.

16 THE COURT: Okay.

17 MS. LOGAN: May I proceed?

18 THE COURT: Yes.

19 CROSS-EXAMINATION

20 Q. (BY MS. LOGAN) Good afternoon, Doctor.

21 A. Good afternoon.

22 Q. I want to talk to you about some of the  
23 things that you've just testified to. Is it possible  
24 for you to look at the results here and tell us how  
25 many times or at what time cocaine was ingested into

1 the body of this person?

2 A. No.

3 Q. And is it possible without more information  
4 to tell us whether he did 2 grams of cocaine or a  
5 half a gram of cocaine based on these numbers?

6 A. No.

7 Q. Okay. Now, I want to talk to you about a  
8 substance known as ecstasy. Is that something that  
9 falls within the group of amphetamines?

10 A. Yes. It's a derivative of methamphetamine.

11 Q. Okay. And is it sometimes referred to as a  
12 designer drug?

13 A. Yes.

14 Q. Okay. Can you tell the ladies and  
15 gentlemen of the jury what that means to you?

16 A. Well, ecstasy was derived from  
17 methamphetamine. Methamphetamine was original  
18 compound. By just adding a methoxy group on the  
19 methamphetamine --

20 THE REPORTER: A methoxy?

21 THE WITNESS: Methoxy group. It's a  
22 chemical. It's a chemistry.

23 A. So, it's a group of -- a chemical group  
24 that's added on the methamphetamine to make it  
25 methylenedioxy methamphetamine.

1 Q. (BY MS. LOGAN) Okay. And that's where we  
2 get the MDMA?

3 A. Yes, methylenedioxy methamphetamine.

4 Q. Okay. And we're still talking about  
5 ecstasy, right?

6 A. Yes. That's the street name for meth --  
7 MDMA, yes.

8 Q. Okay. Great. And are you familiar, based  
9 on your experience and studies into the effects of  
10 controlled substances on the body, that it is  
11 described as creating a sense of euphoria?

12 A. Correct.

13 Q. Okay. And it's also described as creating  
14 a sense of intimacy and love?

15 A. Correct.

16 Q. Also among the effects are that it  
17 diminishes a person's anxiety?

18 A. At a certain stage, yes.

19 Q. Okay. I'm sorry? I missed that.

20 A. At a certain stage, it would.

21 Q. Okay. At a certain stage of --

22 A. Yeah.

23 Q. -- metabolism [sic]?

24 A. Yes.

25 Q. Okay.



1           A.     Well, there are -- you know, when the drug  
2     is introduced. And then there are so many processes.  
3     At a certain stage of that process, it would happen.

4           Q.     Okay. And the description of sort of an  
5     inner peace or self-acceptance is something that you  
6     hear associated with ecstasy?

7           A.     Yes. Because it's -- it's a mood-altering  
8     compound in a positive way.

9           Q.     Okay. And can it also at some point during  
10    the point at which it's been ingested cause  
11    aggression, hostility, or jealousy? Are those also  
12    things that are described by users of ecstasy?

13          A.     Well, maybe when you're at the end of  
14    probably, you know, when you are feeling that way  
15    and, you know, you may feel rejected in way you are  
16    acting, you know, acting out. If somebody -- if you  
17    feel that you're rejected, you may feel that way  
18    because at that time you have a good perception of  
19    yourself and good perception of the other person or  
20    your surrounding. So, it can cause that.

21          Q.     Okay. And, in fact, are you aware of  
22    studies that have been done that indicate a clinical  
23    use for ecstasy to help people discuss  
24    anxiety-provoking events?

25          A.     Yes, psychotherapy.

1 Q. Okay. So, in other words, ecstasy is  
2 something that can be taken under the direction of a  
3 doctor to assist a person in talking about things  
4 that make them anxious?

5 A. Yes.

6 Q. Are you also aware that ecstasy increases a  
7 person's energy and endurance?

8 A. Yes.

9 Q. Okay. And is that part of the stimulant  
10 nature of the --

11 A. Because, yes, all the stimulants, central  
12 nervous system stimulants do have that property.

13 Q. Okay. And, so, you're, likewise, aware of  
14 it reducing a person's sensitivity to pain?

15 A. To certain degree, yes.

16 Q. Okay. And again that's a portion of the  
17 stimulant --

18 A. Yes.

19 Q. The nature of the stimulant?

20 A. Uh-huh.

21 Q. Okay. And now I want to talk to you about  
22 some to the aftereffects of ecstasy or MDMA. It can  
23 cause anxiety and paranoia, right?

24 A. Yes.

25 Q. It can cause hallucinations?

1 A. Correct.

2 Q. It can cause delusions?

3 A. Correct.

4 Q. It can cause memory impairment?

5 A. Correct.

6 Q. And based on your study in this area and  
7 your experience as a toxicologist, can you tell us  
8 whether or not you would expect to see at least some  
9 of those things we've just discussed if a person were  
10 to take three ecstasy pills in a 24-hour period?

11 A. That, you know, vague question again.  
12 Because what kind of pills? You know, how much is in  
13 a pill? You know, you counted three; but how much is  
14 in a pill really?

15 Q. Okay. I'm sorry. I didn't mean to be  
16 vague. Is there a certain dosage that you commonly  
17 see with respect to ecstasy?

18 A. On this I see, you know, what amount in the  
19 blood, it cannot tell you that.

20 Q. Okay.

21 A. All we know is, you know, how much of the  
22 concentration of that MDMA in the human body would  
23 cause the effect of all that we talked about. Right  
24 now I cannot tell you that.

25 Q. Okay. And can you tell us what the rate of

1 metabolizing ecstasy is in the human body?

2 A. You want me to compare it to cocaine or?

3 Q. Sure. Sounds good.

4 A. Okay. Well, we -- the rate of the  
5 metabolism usually you do, you know, like  
6 narco-kinetic studies. You do, you know, half-life.  
7 You know, what's the half-life of a certain amount of  
8 drug. That means when you say "half-life" and how --  
9 how long does a body take or does it take for the  
10 body to process half of the drug. That's called  
11 "half-life." So, when you consider a half-life,  
12 it's -- cocaine does have a very short half-life, and  
13 ecstasy has a very long half-life, you know, as  
14 compared to one to ten.

15 Q. Okay. So, is it fair to say that the body  
16 will metabolize cocaine faster than it metabolizes  
17 ecstasy?

18 A. Yes. So, that means, you know, if you take  
19 the same amount of drug, like the same amount of  
20 cocaine and ecstasy, the ecstasy would stay in your  
21 system longer.

22 Q. Okay. And would that likewise result in  
23 you feeling the effects of the ecstasy longer than  
24 you would the effects of the cocaine?

25 A. Correct.

1       Q.     Hypothetically speaking, if a person were  
2     to, let's say, at 5:00 o'clock p.m. take one ecstasy  
3     pill and let's say three hours later at 8:00 o'clock  
4     take another ecstasy pill, would it be possible for  
5     that person to experience both the euphoric  
6     experience of the initial ingestion of the pill as  
7     well as the after-life type -- not afterlife --  
8     aftereffect. We're not going to get that deep.  
9     So -- okay. Let me try that again. If you were to  
10    take two pills at two different times, is it possible  
11    to experience both the aftereffect from the first  
12    pill and the initial euphoria of the second pill at  
13    the same time?

14       A.     Well, the thing is you cannot have two  
15    different feelings at the same time. Okay? You have  
16    to have one feeling at a given time. So, without  
17    knowing, you know, how much is in that pill and  
18    without knowing -- you know, without knowing how much  
19    is in that body, in somebody's system, it's very hard  
20    to say whether he was feeling the downside effects or  
21    the upside effect. And then when you look at those  
22    effects, they criss-cross each other, really. You  
23    know, at certain time you are feeling high and  
24    affectionate; and then after awhile when the drug  
25    waned, you know, you feel down and then you feel

1 rejected stuff, you know, during the dysphoric phase.  
2 You come to a dysphoric phase. So, it's very hard to  
3 say, you know, so, at this time he was feeling this  
4 and he took this and at this time he was feeling  
5 that. It's very hard to put a demarcation like that  
6 because it's a feeling. So, nobody even -- you know,  
7 experimentally, you know, we can't measure that  
8 unless, you know, there's an outward effect that, you  
9 know, a person can see, me and you can see.

10 Q. Okay. And would you agree with me, Doctor,  
11 that you would be -- you could be equally aggressive  
12 if you combined cocaine and alcohol as you could be  
13 if you combined ecstasy and alcohol?

14 A. Aggressive? And it also depends, you know,  
15 how much alcohol is in your system. And usually, you  
16 know, the alcohol in the beginning would, you know --  
17 you would be feeling the more euphoric effect with  
18 the ecstasy. And then it also depends -- again this  
19 is just, you know, a vague question. You know, I  
20 can't put my hands in there.

21 Q. Okay.

22 A. Really, you know, I can't say.

23 Q. Okay.

24 A. So -- but, you know, when you say  
25 "aggressiveness," usually does not go with ecstasy.



1 Q. Okay. Fair enough. Now, can you tell me  
2 what, if any, effects you would expect if someone  
3 were to combine alcohol, ecstasy, and marijuana?

4 A. See, there are -- these are three different  
5 property drugs. One is a central nervous stimulant.  
6 One is a central nervous system depressant. And the  
7 other one is a hallucinogenic drug. At a given time  
8 you may feel high; and at a given time you, you know,  
9 one would kick in and you may feel low. At another  
10 time one would kick in and you become paranoid. So,  
11 it's really a -- the person who is taking it can tell  
12 you that.

13 MS. LOGAN: I'll pass the witness.

14 THE COURT: Anything else?

15 REDIRECT EXAMINATION

16 Q. (BY MR. BARNETT) Doctor, combining alcohol,  
17 marijuana, and MDMA, ecstasy, I just want to ask you  
18 about -- the Government lawyer, Ms. Logan, asked you  
19 about if that would make you aggressive. And it was  
20 unclear to me, your answer. Do those three combine  
21 to make a person aggressive?

22 A. That's what I am trying to explain to you.  
23 Like the central nervous system stimulants -- like  
24 ecstasy and cocaine are central nervous system  
25 stimulants. At a given time, you know, it would give

1     you the urge to be aggressive. But there's also an  
2     alcohol there. Why is people taking alcohol and  
3     other drugs? To mellow themselves from getting into,  
4     you know, the dangerous effects of one from the  
5     other. So, clearly -- and we're talking about doing  
6     it together or in separate time. And in a given  
7     30-minute hour, a person can change sentiment 30  
8     times. You see what I mean? It can, one, be  
9     aggressive at one time. One be, you know, mellow.  
10    Can be talkative. It can be, you know -- depending  
11    on at what stage of the body processes it's going to  
12    be. These are three different action drugs.

13         Q.     Okay.

14         A.     Three of them have got three different  
15    effects.

16         Q.     And I'm not talking about cocaine. I'm  
17    talking about the ecstasy, the alcohol. Excluding  
18    cocaine, do the other three make you aggressive at  
19    any point?

20         A.     Okay. Let's explain about aggression.  
21    What is -- when you say "aggression," what is it that  
22    you want -- you want to make a statement by saying  
23    the person is aggressive, you know. When some people  
24    talk, they talk aggressively, right?

25         Q.     Correct.

1           A.     Let's go to the word and explain that.  
2     Because, you know, we don't want to say things that  
3     are not true here just based on, you know,  
4     aggression. You know, when you are feeling high, for  
5     instance, some people feel high and express  
6     themselves really strongly or aggressively. And is  
7     that what you call, you know, "aggressive" or  
8     "aggression"? Or in regards to, you know, making  
9     that aggression into violent behavior, which one are  
10    we talking about here?

11          Q.     Let's talk about --

12          A.     It could be aggression about, you know,  
13    feeling good kind of aggressiveness, you know. Going  
14    forward and outward. You know, somebody who is not  
15    talking or who is shy can get aggressively talkative  
16    by just taking ecstasy. Okay? I'm trying to make,  
17    you know, everybody aware that what we're talking  
18    about when you talk about aggression, yes, it can  
19    cause aggression, but at what level of aggression?

20          Q.     Can we -- in response to that, can we, say,  
21    move into violence? Does ecstasy make someone  
22    violent?

23          A.     I don't know. I haven't heard ecstasy  
24    making anybody violent, or I did not see any reports  
25    that ecstasy making somebody violent..

1 Q. And you've done studies in the effects of  
2 ecstasy on the human body, haven't you?

3 A. I have read it. I did not do the studies.  
4 I have read about them.

5 Q. And none of those studies said ecstasy  
6 makes a person violent, did they?

7 A. I did not see any pertaining to violence.  
8 Aggression, yes, but not violence.

9 Q. Doctor, the prosecutor asked you about  
10 ecstasy affecting a person's sensitivity to pain.

11 A. Uh-huh.

12 Q. I want to ask you about cocaine. Can a --  
13 and let's take a person with this amount of cocaine  
14 in their blood, the .17 milligrams per liter.

15 A. Uh-huh.

16 Q. Based on your experience and your studies,  
17 is it possible that this person would not be as  
18 sensitive to pain as a person who did not have  
19 cocaine in their system?

20 A. I can't put anything about pain with a  
21 level. I cannot associate pain and a level of  
22 cocaine in a person because that's all subjective.

23 Q. Have you done any studies on or read or  
24 researched on how a person reacts to violence that is  
25 on cocaine?

1           A.     How a person -- can you state that question  
2 again?

3           Q.     Well, have you studied how cocaine relates  
4 to violence?

5           A.     How cocaine cause the violence?

6           Q.     Correct.

7           A.     You know, the outward symptoms and they get  
8 paranoid and they get very energetic, you know,  
9 unbelievably very highly energetic and they feel like  
10 nobody can touch them and they, you know, thrash  
11 around whatever they saw and they're very aggressive  
12 and they become violent that way. And that's what it  
13 does to you by going through mechanisms in your body.  
14 That's already a known fact.

15          Q.     And would a person who has ingested,  
16 hypothetically, this .17 milligrams per liter of  
17 cocaine, would this person -- is it possible, based  
18 on your studies, would they be -- in their violent  
19 behavior, would they be able to take on more injury  
20 than a person without cocaine in their system?

21          A.     Would they be able to take more injury  
22 means what?

23          Q.     Well, would they --

24          A.     Without feeling pain?

25          Q.     Correct.

1           A.     They could.

2           Q.     And is that something that you've learned  
3     in your studies?

4           A.     Well, it's been said that they don't feel  
5     that much pain. So, that's what it means. In other  
6     words, what you described to me is they may -- you  
7     know, if somebody hit them for instance or punch  
8     them, for instance, you know the degree of pain they  
9     may feel may be less. That's what it means.

10          Q.     So -- and that's what I'm getting at. So,  
11     a person who has, say, a .17 milligrams per liter of  
12     cocaine could possibly take a punch and still stand  
13     up whereas a person who did not have cocaine in their  
14     system couldn't?

15          A.     Like I said earlier, I mean, this vial that  
16     we got in there does not tell me whether that person  
17     is going to endure pain or not. I cannot associate  
18     that with the level that we see in the blood. But  
19     it's a known fact, you know, from reports in other  
20     studies that people on cocaine, regardless of the  
21     amount in there, on cocaine they may feel less pain  
22     than other normal people who did not do the drug.  
23     That's the general statement. It has nothing to do  
24     how much it has to be in the blood for a person to  
25     feel pain or not to feel pain. There's no study that



1 I read, at least, to associate numbers in the blood  
2 or the levels in the blood with feeling pain or not.  
3 That's what I'm trying to say.

4 Q. You're just talking generally.

5 A. It's generally, yes. Generally it's been  
6 said or it's been -- you know, people that have had  
7 that kind of experience have come and said that, you  
8 know, they feel energetic and, you know, they don't  
9 feel pain. And that's recorded on several papers.

10 Q. They have that bullet-proof sensation?

11 A. I don't know if you call it "bullet proof."  
12 I don't know.

13 Q. Okay. Doctor, I appreciate it.

14 MR. BARNETT: I pass the witness, your  
15 Honor.

16 THE COURT: Anything else, Ms. Logan?

17 MS. LOGAN: Just briefly, Judge.

18 RECROSS-EXAMINATION

19 Q. (BY MS. LOGAN) Doctor, with respect to what  
20 we referred to as designer drugs, including ecstasy,  
21 can you tell me whether or not, to your knowledge,  
22 they vary in their content as far as --

23 A. You mean the tablet?

24 Q. Yes.

25 A. Yeah. You know, these are designer drugs.

1 They are made somewhere else. Nobody knows how much  
2 is in there. So, they vary. We believe they vary.

3 Q. Okay. So, there's no, like, F.D.A.  
4 approval on a --

5 A. No, these are --

6 Q. -- baggy of ecstasy, right?

7 A. No.

8 Q. All right. And, so, they can vary with  
9 respect to the contents and what that particular pill  
10 might cause; is that correct?

11 A. Correct.

12 Q. And have you ever heard of a bad trip or a  
13 bad ecstasy trip in your experience as a  
14 toxicologist?

15 MR. BARNETT: Objection. Relevance  
16 and outside the scope of the evidence.

17 THE COURT: Overruled.

18 Q. (BY MS. LOGAN) Have you ever heard that  
19 before, that phrase?

20 A. Yeah, I have heard the phrase.

21 Q. Okay. And in your experience, that relates  
22 to a person that took an ecstasy pill that didn't  
23 have the anticipated effect?

24 A. Uh-huh.

25 Q. Is that right?

1           A.       Correct.

2                   MS. LOGAN: I'll pass the witness.

3                   MR. BARNETT: No further questions.

4                   THE COURT: Thank you, Doctor. You  
5 can step down.

6                   May this witness be excused?

7                   MR. SCHNEIDER: She can be excused,  
8 your Honor.

9                   THE COURT: Any objection?

10                  MS. LOGAN: No.

11                  THE COURT: Ma'am, you're free to go  
12 and released.

13                  Folks, we're going to take just a  
14 short break and then come back and work until about  
15 5:00, maybe 5:15 at the latest. So, just take about  
16 ten minutes.

17                  Lawyers, let's talk for a second about  
18 Dr. Ferrara.

19                  (Jury leaves courtroom)

20                  (Recess taken)

21                  THE COURT: Go ahead and bring them  
22 out.

23                  (Jury enters courtroom)

24                  THE COURT: Be seated, please.

25                  Please call your next witness.

Trial on Merits  
October 1, 2014

1 (Jury enters courtroom)

2 THE COURT: You may be seated, guys.

3 Welcome back. Hopefully -- you can be  
4 seated -- everything will -- we'll get this thing  
5 wrapped up today.

6 The State had rested.

7 The Defense, you're up. Call your first  
8 witness.

9 THE DEFENDANT: Your Honor, I call  
10 Dr. Guale to the stand.

11 THE COURT: Okay.

12 THE DEFENDANT: Has she already been sworn  
13 in?

14 THE COURT: Not yet.

15 Come on up.

16 THE WITNESS: Good morning.

17 THE COURT: Good morning.

18 (Oath administered to the witness)

19 THE COURT: Please come up and have a  
20 seat. Pull the microphone up to you. Speak clearly.

21 Defense, you may begin.  
22  
23  
24  
25

Fessessework Guale - October 1, 2014  
Direct Examination by the Defendant

1                   **DR. FESSESSEWORK GUALE,**  
2   having been first duly sworn, testified as follows:

3                   **DIRECT EXAMINATION**

4   BY THE DEFENDANT:

5       Q.    Good morning, Dr. Guale.

6       A.    Good morning.

7       Q.    I want to ask you a few questions that  
8   Mr. Salazar yielded to you and said you would have  
9   better knowledge of today. So some may seem a bit  
10   incomplete, but at some point he stopped and said you  
11   would be the person to speak with about this particular  
12   topic.

13      A.    Okay.

14                   THE COURT: Why don't you let the jury  
15   know who she is?

16                   THE DEFENDANT: I'm sorry?

17                   THE COURT: Why don't you let the jury  
18   know who she is?

19                   THE DEFENDANT: Dr. Guale? Oh.

20      Q.    (By The Defendant) Dr. Guale, you would be the  
21   head forensic --

22                   THE COURT: Again, that's leading.

23      Q.    (By The Defendant) Dr. Guale --

24                   THE COURT: Why don't you ask --

25      Q.    (By The Defendant) Dr. Guale, what is your role

Fessesessework Guale - October 1, 2014  
Direct Examination by the Defendant

1 at the -- where do you work, Dr. Guale; and what is your  
2 title?

3 A. I work in the Harris County Institute of  
4 Forensic Sciences, toxicology department.

5 THE COURT: Let the jury know a little bit  
6 about her qualifications.

7 Q. (By The Defendant) Please, Dr. Guale, tell the  
8 jury your qualifications, how long you've been on the  
9 job, and your experience and background.

10 A. I have been in the institute for the last eight  
11 years, and I hold several different positions. I was a  
12 Toxicologist 2 and a Toxicologist 1, which is a manager.  
13 Right now, I am the codirector of the laboratory and,  
14 also, the toxicology analytical operations manager. I  
15 have a total of 23 years of toxicology experience. I  
16 hold a doctorate degree and a master's degree in  
17 toxicology.

18 Q. Thank you, Dr. Guale.

19 Now, yesterday, we were made aware that  
20 there's a toxicology manager. Is that correct?

21 A. Correct.

22 Q. Now, would that toxicology manager be at the  
23 top of the chain for making decisions as to how blood is  
24 analyzed and in what way?

25 A. Yes. I am the one who makes the decision,



Fessesessework Guale - October 1, 2014  
Direct Examination by the Defendant

1 because I am the analytical operations manager. So I  
2 oversee the operation -- the day-to-day operation of the  
3 laboratory in that regard.

4 Q. Okay. So can you tell us how you decide which  
5 type of test to apply to certain blood samples in a --

6 A. We have two different source of samples. One  
7 is a postmortem toxicology that comes from the medical  
8 examiner, and the other one is DWI and cases that comes  
9 from the law enforcement agencies around here, the  
10 Harris County Sheriff's Department and other precincts.  
11 And when a DWI panel was requested, we started with the  
12 alcohol testing; and then if the alcohol testing is  
13 above a 0.17 and above, then we conduct other more  
14 testing. If it is above 0.17, that will be the only  
15 result it will send out.

16 Q. Dr. Guale, can you discuss with us -- is it  
17 pronounced glycolysis? I'm not sure. That was a term  
18 that may have been used yesterday by Mr. Salazar. Does  
19 that sound correct?

20 A. Say that again because there are so many words  
21 like that.

22 Q. I believe he may have said glycolysis? That's  
23 why I wrote it down because I didn't remember what --  
24 does that --

25 A. Glycolysis? Is that what it is? Glycolysis

Fessesessework Guale - October 1, 2014  
Direct Examination by the Defendant

1 means, you know, breakdown of glucose --

2 Q. Okay.

3 A. -- in short.

4 Q. Now, I don't believe he elaborated on that; so  
5 how does that relate to blood testing?

6 A. Nothing, really. It's not related to blood  
7 testing at all. It just depends on the concept of what  
8 was being said. What was the question that raised that?

9 Q. Okay. It wouldn't have been my question, so I  
10 just put that word down to ask you about it today. So  
11 I'll move on.

12 Okay. We talked a little bit about sodium  
13 fluoride --

14 A. Yes.

15 Q. -- and the presence of it within the vials for  
16 blood testing that come already -- when they come to  
17 you, it's already with the sodium fluoride in the  
18 bottle?

19 A. Yes.

20 Q. Is every type of vial always filled with that  
21 sodium fluoride first, to your knowledge, always?

22 A. Not all of them but all gray topped tubes do  
23 have the sodium fluoride in them and it's standard  
24 protocol for collecting blood in that tube when it comes  
25 to, you know, alcohol analysis and drug analysis.

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Direct Examination by the Defendant

1       Q.    So, when the testing is done on the blood, is  
2   there some sort of chemical strain or something that  
3   shows that both the sodium fluoride is in there, as well  
4   as the ethanol, that you can actually pull out and  
5   distinguish that sodium fluoride is there as well as the  
6   ethanol?  How does that work?

7       A.    The alcohol testing only tests for volatiles  
8   and ethanol and the other volatiles that can be there.  
9   But it does not test for sodium fluoride because it's  
10  given, it's there.  We see it is there because it's a  
11  smooth blood and we know it is a gray topped tube and  
12  it's on the tube, it says it's added sodium fluoride in  
13  there so we don't need to check that.

14       Q.    And does sodium fluoride hold its effectiveness  
15  indefinitely?

16       A.    Of course, yes.

17       Q.    It does?  Now, what type of -- how does one  
18  know that it does hold its effectiveness, in terms of  
19  stabilizing the blood indefinitely?  How does one know  
20  that?

21       A.    Well, one, there has been studies that has been  
22  done with its potential to keep the blood sample as is,  
23  preserving it as is.  That's why it's called  
24  preservative.

25                   And, two, if it's not functional, then you

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Direct Examination by the Defendant

1 would see -- like, for instance, we check blood samples,  
2 sometimes we get a retest after two years. And then the  
3 blood alcohol level come back right on. So even that,  
4 you know, it's my experience that I can attest that it  
5 would keep it preserved indefinitely.

6 Q. And so, conversely, if you were to test a  
7 sample two years later, could the opposite have  
8 happened, that the number changed very drastically?

9 A. It could change at a lower. It would decrease  
10 because, you know, when you open a sample several times,  
11 it may decrease the amount because on top of the tube,  
12 the alcohol may be getting in there. So when you open a  
13 tube, like, for instance, for other analytical runs and  
14 then it would evaporate so it would -- if we check it  
15 this time, it comes, like, for instance 0.1, two years  
16 later, it would become 0.09 or lower than that. That is  
17 the effect, lowering effect.

18 Q. So the number of times a vial is opened affects  
19 the results of the analysis; is that correct?

20 A. It would decrease it, uh-huh.

21 Q. To your knowledge, how many times were each of  
22 those two vials opened?

23 A. In this particular case, those two vials has  
24 been opened only once because one tube was screened; and  
25 then the other tube, it was opened for confirmation.

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Direct Examination by the Defendant

1 So --

2 Q. And -- I'm sorry.

3 A. That's it.

4 Q. So how many days would've passed between  
5 opening the first vial and opening the second vial?

6 A. I can't specifically tell you because I don't  
7 have that data in front of me, but it would not be more  
8 than two or three days. If it is a weekend -- like, for  
9 instance, if it is a screening on Friday, we know we  
10 have to confirm it on Monday. So it would be three  
11 days. But sometimes, it could be one day. You know,  
12 the first day, we open one; the second day, you know, we  
13 open the other one.

14 Q. Now, Dr. Guale, can you please just briefly  
15 tell us a little bit about fermentation and how it  
16 applies to blood analysis?

17 A. Fermentation is a problem usually on postmortem  
18 cases; and then when it is a postmortem case, also,  
19 there are also two conditions that have to be fulfilled.  
20 One, the yeast have to exist in the system, which is a  
21 Candida albicans; and then the second condition that has  
22 to exist in that particular sample is a person being  
23 diabetic or high glucose.

24 So when that happens and a person dies, it  
25 can either form it after the person dies because of the

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Direct Examination by the Defendant

1 infection with the yeast or before the person dies, if  
2 the person has got a yeast infection. And, usually, you  
3 see that in the urine, not actually in the blood.

4 But in blood samples that are collected  
5 from DWI, regardless of what exists, because we -- or  
6 the blood is collected in a preservative, that should  
7 never happen.

8 Q. Now, Doctor, you mentioned that yeast is  
9 collected in the urine and not the blood. Are you  
10 saying that that would only --

11 A. Infection.

12 Q. I'm sorry, what was it?

13 A. It's a yeast infection.

14 Q. Okay.

15 A. If a person suffers from a yeast infection or  
16 if the yeast is in his system or in her system and then  
17 at the same time, that person is really highly diabetic  
18 with uncontrolled diabetes, they do have, you know, a  
19 lot of glucose so the yeast would work on the glucose  
20 and it would produce ethanol. That is actually -- you  
21 know, in a urine sample that's not preserved, you can  
22 see that.

23 Q. In the testing that is only -- well,  
24 ethanol and -- is there -- there are three other --

25 A. Yeah, there's ethanol, methanol, acetone, and

Fessessework Guale - October 1, 2014  
Direct Examination by the Defendant

1 isopropanol. We check for those.

2 Q. So when the blood is determined to be above a  
3 certain decimal point, you only test for those; is that  
4 correct?

5 A. No. Every time a sample is tested for alcohol,  
6 we test them for all those four.

7 Q. Yes. And then -- but then any other  
8 substances, there's no -- there's not any way to  
9 determine if any other substances exist in the blood  
10 because of that type of test; is that correct?

11 A. We check it only for alcohol and the other  
12 volatiles. But if the sample contains less than 0.17  
13 alcohol, we go further and test it for drugs.

14 Q. And so when it's at that 0.17, you only zone in  
15 on the ethanol; is that correct?

16 A. We just report only the ethanol result.

17 Q. Okay. Thank you, Dr. Guale.

18 THE DEFENDANT: I pass the witness.

19 MS. LITTLE: Your Honor, we have no  
20 questions for this witness.

21 THE COURT: You may step down. Thank you  
22 so much for coming.

23 THE WITNESS: You're welcome.

24 THE COURT: Call your next witness.  
25 Defense, call your next witness.



1 draw the blood. Sit the tubes down. Afterwards we  
2 take the needle out, cover it with the gauze and tape,  
3 and then the officer asks us to sign the form. Sign  
4 the forms and the officer labels the blood and put the  
02:36 5 blood back in the box.

6 Q. And that's a pretty standard procedure that  
7 you do every time?

8 A. Yes, sir.

9 Q. Have you done a lot of these blood draws?

02:36 10 A. Yes, sir.

11 MR. MURPHY: Okay. Pass the witness,  
12 Your Honor.

13 MR. PORTIS: No questions, Your Honor.

14 THE COURT: Thank you, sir.

02:36 15 Thank you, ma'am. You are excused.

16 MR. MURPHY: May this witness be  
17 released, Your Honor?

18 THE COURT: Yes, sir.

19 Call your next witness, please.

02:37 20 MR. MURPHY: The State calls Dr. Guale.

21 THE COURT: This witness has been  
22 previously sworn. Thank you, ma'am. If you will  
23 have a seat in the witness chair next to me.  
24 Please speak directly into the microphone. Try not  
02:38 25 to speak over the lawyers and they will try not to

1 speak over you. Please proceed.

2 DIRECT EXAMINATION

3 BY MR. MURPHY:

02:38

4 Q. Good afternoon, Dr. Guale. Would you please  
5 state your full name for the Court and the jury?

6 A. My name is Fessesessework Guale.  
7 F-E-S-S-E-S-S-E-W-O-R-K, first name. My last name is  
8 G-U-A-L-E.

9 Q. And, Dr. Guale, how are you currently  
10 employed?

11 A. I am employed by the Harris County Institute of  
12 Forensic Sciences. I am the analytical operations  
13 manager.

02:38

14 Q. And could you tell us a little bit about  
15 your background, education, and training?

16 A. I have a doctorate degree in veterinarian  
17 medicine. And I also have a master's degree in  
18 toxicology. And I have generally about 22 years of  
19 practical working experience in the laboratory,  
20 veterinarian laboratory and forensic laboratory.

02:39

21 Q. And how long have you been working in your  
22 current position?

02:39

23 A. In Harris County, I was first toxicologist two,  
24 then I got a promotion as a toxicologist one. And then  
25 the position that I am right now, I have been there for

1 four years as a manager.

2 Q. Does the Harris County Institute of Forensic  
3 Sciences have any sort of accreditation?

4 A. Yes, we do have two accreditation. One is  
02:39 5 ASCLD-LAB International. The American Association for  
6 Crime Lab Directors, Laboratory Accreditation  
7 International. And the other one is ABFT or we call it  
8 the American Board of Forensic Toxicology. And then  
9 the other one is DPS of course. DPS, we are certified  
02:39 10 by DPS too.

11 Q. Are there standards and requirements in  
12 order to get those certifications?

13 A. Yes, these are very stringent rules, and  
14 specific rules, quality control rules that we have to  
02:40 15 follow. Every year we have to go through an inspection  
16 and we have to perform the qualifications that we need  
17 to perform and fulfill, and the standards are  
18 international standards too.

19 Q. And does the Harris County Institute of  
02:40 20 Forensic Sciences perform testing on blood samples?

21 A. Yes.

22 Q. How do they test blood samples?

23 A. Well, the blood is -- we do have two different  
24 sections. One is post-section where we receive, you  
02:40 25 know, samples from the medical examiners. And the

1 other is DWI kit samples from law enforcement agencies  
2 around Harris County. And for both testing we do have  
3 different protocols. For DWI cases we do have a  
4 separate protocol from the other one. And then our  
02:41 5 protocol for DWI cases once the blood is received by  
6 the evidence technicians, it will be logged into the  
7 information management system in the toxicology  
8 laboratory, and then it would be given an identifying  
9 number. From there on, it follows -- the chain of  
02:41 10 custody follows that bar code. And in the way we do  
11 it, we analyze the samples first for alcohol and then  
12 if the alcohol comes in below a .16 gram per 100  
13 milliliters, then we subject that sample to full  
14 toxicology drug screening. And then toxicology drug  
02:41 15 screening is also divided into two. One is for elicit  
16 drugs, the common drugs of abuse, and the other one is  
17 for all the prescription and over-the-counter drugs and  
18 some drugs that had an abuse potential and also the  
19 designer drugs that are out there.

02:42 20 Q. And what is the methodology for testing  
21 blood toxicology for these drugs?

22 A. We do have several different type of  
23 methodologies. The screening we call them -- there's  
24 gas chromatography, mass spectrometry, and the other  
02:42 25 one is liquid -- mass spectrometry. We have several

1 different kind of methodology.

2 Q. And are these methodologies generally  
3 accepted within the scientific community?

4 A. Yes.

02:42 5 Q. Are they accepted for producing accurate  
6 results?

7 A. Yes.

8 Q. And does this lab comply with scientific  
9 standards for administering these methodologies?

02:42 10 A. Yes, that's one of our requirements is to  
11 perform validation that the accreditation standards  
12 should apply. So all our maintenance are specific for  
13 specific purposes and that for -- national standard  
14 analysis.

02:43 15 Q. And whenever you receive a sample of blood  
16 in your lab that is sent for toxicology testing,  
17 how do you ensure that blood identifiers stays  
18 unique and doesn't get mixed up with anything else?

02:43 19 A. We do have quality control checks and balances  
20 that we have in our system. Once the bar code is  
21 given, and all that bar code is going to be on the  
22 tube, and then every time that tube is touched, the  
23 person who touched it will have a bar code and scan  
24 that bar code. It's electronically followed. So once  
02:43 25 it's in the possession of an analyst who is performing

02:44

02:44

02:45

02:45

02:45

1 the testing and another person is going to come and  
2 initial what that is -- correct within the steps of the  
3 process. So we have several pre-analysis check,  
4 post-analysis check. And then once the post-analysis  
5 check is done, where the person is recording --  
6 reporting the result on the data that would be again  
7 reviewed by another person. And then once that data is  
8 technically reviewed, there will be expert reviewer and  
9 that's when we report it out. We have several layers  
10 of checks and balances.

11 Q. I am showing you what has been previously  
12 admitted as State's Exhibit 4. And there's a bar  
13 code there. Can you explain what that bar code is?

14 A. This is the number that we give that's also on  
15 the case folder and that's also on the samples. This  
16 is what the bar code -- the unique identifier number  
17 that we give on each sample.

18 Q. So this bar code is how you know that the  
19 same samples brought in is the same as the test  
20 results that you are getting and the same blood  
21 that gets check back to the agency when it's all  
22 done?

23 A. Yes.

24 Q. Now were -- was a blood sample submitted to  
25 your lab by a J. Barcelona for a Lanis Ray Hitt,

1 the IFS# would be 14-09330?

2 A. Yes.

3 Q. And approximately when was that tested?

4 A. There are several different testings done, so  
02:46 5 the testing time is going to be very variable. But I  
6 can tell you it was tested for alcohol by Andre Salazar  
7 -- 8-1-14, and reported -- initial date -- reviewed by  
8 Andre by 8-4-14. And then it was technically reviewed  
9 by Patricia Small on 9-11-14. And that's only one  
02:46 10 analysis.

11 Q. Was there any alcohol indicated in that one?

12 A. No, there was no alcohol indicated in that.

13 Q. And so what's the next step?

14 A. The next step was the biochip array, which is --  
02:46 15 checks for nine different drugs, group of drugs. And  
16 was done by Andre Salazar on 8-8-14. And then reported  
17 on 8-11-14. And technically reviewed by Patricia  
18 Small, 9-11-14. And the other screening that we did  
19 was time of light mass spectrometry screening for the  
02:47 20 eight drugs, which are included prescription drugs and  
21 over-the-counter drugs and other synthetic marijuana  
22 and bath salt drugs. And those were performed by an  
23 Andrew Ru-may (ph) on 8-6-14 and reported by Crystal  
24 Arndt on 8-13-14, and reviewed accordingly. And the  
02:47 25 other was identified. That needs to be confirmed. So



1 it went to be confirmed by the liquid spectrometry on  
2 8-19-14. And then the biochip area came back positive  
3 for Benzodiazepines and then a confirmation on  
4 Benzodiazepines was performed on 8-22-14.

02:48

5 MR. MURPHY: Permission to approach the  
6 witness, Your Honor?

7 THE COURT: Yes, sir.

8 BY MR. MURPHY:

02:48

9 Q. I am handing you what has been previously  
10 marked as State's Exhibit 17. Do you recognize  
11 that?

12 A. Yes.

13 Q. And is that an accurate copy of the lab  
14 reports?

02:48

15 A. Yes.

16 Q. And at the end of it whose signature is  
17 that?

02:49

18 A. This is a technical reviewer of the whole case,  
19 where is Patricia Small, and that is my signature as  
20 well, as expert reviewer.

21 MR. MURPHY: State offers State's 17  
22 and tenders to the Defense for inspection.

23 MR. PORTIS: No objection, Your Honor.

24 THE COURT: State's 17 is admitted.

25 (Thereupon, State's Exhibit Number 17

1 was admitted into evidence.)

2 MR. MURPHY: The State requests  
3 permission to publish to the jury State's 17.

4 THE COURT: Yes, sir.

02:50

5 BY MR. MURPHY:

6 Q. Okay. Now up in the upper left-hand corner  
7 here there's a laboratory number. You see it?

8 A. Yes.

02:50

9 Q. Is that the number that you were referring  
10 to earlier?

11 A. Yes.

12 Q. And that's a unique identifier?

13 A. Yes.

02:50

14 Q. And so no other case would have that number;  
15 is that correct?

16 A. No.

17 Q. And it says that it's identified with a  
18 suspect. What does that mean?

02:50

19 A. We just put the suspect's name whenever we are  
20 given a submission form. The officer will drop it. We  
21 get that name from the -- under the suspect. We get  
22 that name and put that name as the suspect there.

23 Q. And is that number tied to that suspect  
24 name?

02:50

25 A. Yes.

1 Q. And on this specimen of blood it lists three  
2 analytes; is that correct?

3 A. Correct.

4 Q. And what is that first one; Alprazolam?

02:51

5 A. The common name of that drug is Xanax. It's  
6 prescribed for anxiety disorders and panic disorders.  
7 It's a central nervous system depressant.

8 Q. You said it's a central nervous system  
9 depressant?

10 A. Yes.

11 Q. So what kind of effects can it have on  
12 someone who consumes it?

02:51

13 A. Normally, you know, when it's normally taken for  
14 normal purposes, it would alleviate those symptoms of  
15 anxiety and those symptoms of panic attacks. But as a  
16 side effect and whenever somebody has got sensitivity  
17 to it, it would go on and causing the side effects,  
18 which is, you know, disorientation, dizziness,  
19 inability to stand and tremors. You know, slurred  
20 speech and thick speech or slurred speech. Yet it can  
21 affect it that way and also can affect -- because of  
22 that it affect driving performance of a person.

02:52

23 Q. Are you aware if manufactures of this  
24 compound generally put the warning labels for its  
25 use?

02:52

1 A. Yes.

2 Q. Are there any activities that you are aware  
3 that they are not to do while consuming it?

4 A. Yes, it was basically warn them, you know, do  
02:52 5 not do or operate machinery before you know how you act  
6 to this drug, or how your body reacts to this drug.

7 Q. And the levels that are observed here, would  
8 that be enough to influence someone's behavior, how  
9 they act?

02:52 10 A. If they act by themselves and that person's body  
11 does not react to the right prescription amount and if  
12 it is by itself and no -- any other central nervous  
13 depressant, if the -- that would be normal. Even with  
14 this normal amount, you know a person may show some  
02:53 15 impairment, but that would be the person who can say  
16 this. And it is possible it can cause even by itself  
17 an impairment, or it may not.

18 Q. And this second one, Carisoprodol?

19 A. Yes.

02:53 20 Q. What is that?

21 A. The common name for this drug is Soma and this  
22 is usually prescribed as a muscle relaxant. And that's  
23 Soma, which is prescribed as a muscle relaxant, would  
24 be metabolize in the body or change in the body to  
02:53 25 Meprobamate. And we call these drugs metabolites of

1 one another. Meprobamate by itself is a drug. There  
2 is a prescription for it that is usually for anxiety or  
3 antianxiety medication by itself. So it would have  
4 equal strengths on somebody's body.

02:54

5 Q. And are these levels of Carisoprodol and the  
6 Meprobamate, would that be normal range, are those  
7 high? What can you tell us about those levels in  
8 the system?

02:54

9 A. If it is by itself, it can be normal. But  
10 usually when it is more than ten, when both of them  
11 come and they are greater than ten, there's definitely  
12 an impairment.

13 Q. And does that mean the combined levels of  
14 those two --

02:54

15 A. Yes.

16 Q. -- which appear to be somewhere around  
17 15 milligrams per liter?

18 A. Yes.

02:55

19 Q. And would that be a level that you would  
20 normally expect some level of impairment?

21 A. Yes.

22 Q. Are you aware of any warnings that are  
23 placed on either of those two substances?

02:55

24 A. Yes, it's the same way, it's the same way. You  
25 know, before you take this medication, you have to

1 assess yourself, how your body reacts and to not drive,  
2 or operate any machinery.

3 Q. Now can you tell us about drug synergy  
4 interaction?

02:55

5 A. What drug synergy is, if you are taking the same  
6 kind of central nervous system depressant, like in this  
7 case, they will have additional affects. It may not be  
8 necessarily a synergistic affect, but an additional  
9 affect. That means, if you take Alprazolam by itself,

02:55

10 you may not be affected. Or if you take the  
11 Carisoprodol by itself, you may not be affected, but if  
12 you are combining the two, you definitely are going to  
13 have the same additional affect, because each of those  
14 drugs affect the central nervous system the same way.

02:56

15 They have a depressant affect. So that means they  
16 will potential the toxicity of one another.

17 Q. And so, if I understand you correctly,  
18 because these are similar type drugs, the affect is  
19 exaggerated?

02:56

20 A. Yes.

21 Q. Could you briefly -- there were a number of  
22 substances that were tested for that were not  
23 detected. Can you explain what some of that  
24 testing is for, some of the more common ones?

02:56

25 A. The more common ones are all the ones that are

1 up here. There are some from our benzo and some from  
2 our synthetic marijuana compounds. And like, you know,  
3 TAC, or marijuana, or Opiates, or Methamphetamines,  
4 PCP, and all the others, you know, the sleeping drugs,  
02:57 5 they are not there. And those are commonly abused  
6 drugs.

7 Q. And so you screen for these to make sure  
8 exactly what's in the blood; is that right?

9 A. Correct.

02:57 10 Q. Based on these levels of drugs in a person's  
11 blood, can you form any kind of opinion about  
12 intoxication?

13 A. I can definitely tell you this combination is  
14 dangerous and it can cause impairment.

02:57 15 MR. MURPHY: Pass the witness, Your  
16 Honor.

17 THE COURT: Mr. Portis.

18 MR. PORTIS: Thank you, Judge.

19 **CROSS EXAMINATION**

02:57 20 BY MR. PORTIS:

21 Q. Good afternoon, Dr. Guale.

22 A. Yes, good afternoon.

23 Q. Can you explain to the jury what Suboxone  
24 is?

02:58 25 A. Suboxone is a drug name where there are two



1 drugs combined in it; one is Buprenorphine and the  
2 other one is Naloxine. These two drugs are narcotics.  
3 And if the person is on Naloxine, the way it is  
4 prescribed is, for the treatment of narcotics  
02:58 5 addiction.

6 Q. Did Suboxone show up in these lab results?

7 A. Yes, we tested that. Actually, if you put that  
8 back here, I can show you which drug it is. Go up  
9 here. Buprenorphine is the main compound in Suboxone.  
02:59 10 And it's not there as you see.

11 Q. Non-detected?

12 A. Non-detected, yeah.

13 Q. You said that Carisoprodol --

14 A. Yes.

02:59 15 Q. And Meprobamate --

16 A. Meprobamate.

17 Q. Sorry, you are better than I am. If there's  
18 a level of 15 milligrams or above, then that could  
19 have an affect?

02:59 20 A. Yes.

21 Q. What's a normal prescription amount for an  
22 adult?

23 A. You mean the tablet?

24 Q. Yes.

02:59 25 A. The tablet is -- usually come in 350 milligrams

1 and then usually have to take three times a day and one  
2 at night. That means you can take up to 1400 per day,  
3 1400 milligrams per day.

03:00

4 Q. What would the results show if someone had  
5 taken 14 milligrams in a single day?

6 A. In a single day, if you consider that, they  
7 should be around 3.5, 3.6, up to 4.8 milligrams per  
8 liter of blood.

03:00

9 Q. For a combination of both or just the  
10 Carisoprodol by itself?

03:00

11 A. For Carisoprodol by itself. Because these  
12 things could go, transformation in the body at a given  
13 time one may be higher and the other one may be lower.  
14 In this particular case, the Meprobamate is higher and  
15 the Carisoprodol is lower. That means that's been  
16 metabolized. There can be two things that can be said.  
17 This has been taken for a long time, so that the  
18 problem is accumulated, or it's been taken yesterday  
19 and then it's being metabolized and then the second day  
20 regimen hasn't been taken or absorbed.

03:00

21 Q. So are these numbers atypical?

22 A. Normally if you are taking a -- according to  
23 prescription, they should not get to that amount.

24 Q. You said the Meprobamate --

03:01

25 A. The Meprobamate.

1 Q. If they have been taking that for a long  
2 time, then it will metabolize in the blood in a  
3 different way and there may be a higher level?

4 A. No, it's the Carisoprodol that you are taking.  
03:01 5 If you are prescribed Meprobamate by itself, you would  
6 not see the Carisoprodol. Okay. But if you are taking  
7 the Carisoprodol and, you know, if it is normally  
8 metabolized and then half day for instance, you know,  
9 your blood is taken, it could be equal, you know, 2.8  
03:01 10 Meprobamate and, you know, 2.5 Carisoprodol. And then  
11 by the time you take the other, your other  
12 prescription, like at night if you take it and just  
13 take blood and observe it in an hour, you may see a  
14 rise of the Carisoprodol because you just take it. You  
03:02 15 have to let the body metabolize it or change it or  
16 transform it. By the time it's time for your next  
17 dose, you may see the Meprobamate higher and the  
18 Carisoprodol lower. So that's why in this particular  
19 case it's my opinion that this would have been  
03:02 20 accumulated Meprobamate.

21 Q. The other drug, the Alprazolam --

22 A. Alprazolam.

23 Q. Xanax?

24 A. Xanax, yes, sir.

03:02 25 Q. It indicates a level so that the other two

1 indicated a total of what, 15 milligrams and Xanax  
2 is .046?

3 A. Yes.

4 Q. Is that a trace amount?

03:03

5 A. No, it is not a trace amount. Like for  
6 instance, the Carisoprodol, the tablet that you are  
7 taking, is 350 milligrams. But when it comes to  
8 Alprazolam or the Xanax tablet, it only has one or two  
9 milligrams per dose. There is a hundred times  
10 difference between the two doses. That's why the label  
11 is almost a hundred times, you know, low, because it  
12 depends on how that small amount of drug acts in the  
13 brain. So for your muscle, you know, to get relaxed,  
14 it takes that much Carisoprodol, you know, to activate  
15 into that side of the brain and the muscle as opposed  
16 to the Xanax which takes only very little amount to do  
17 the function.

03:03

18 Q. You said on the Carisoprodol that there was  
19 a warning label that would prohibit driving; is  
20 that correct?

03:04

21 A. Yes.

22 MR. PORTIS: May I approach, Your  
23 Honor?

24 THE COURT: Yes, sir.

03:04

25 BY MR. PORTIS:

1 Q. Are you familiar with this kind of a label?

2 A. Yes, it says may make this worse, use care when  
3 operating a vehicle, vessel or dangerous machines,  
4 don't drink alcohol beverages while taking this  
03:05 5 medication.

6 Q. Thank you. But it does not say do not  
7 operate a vehicle; it says use care, correct?

8 A. Do not operate is the same thing.

9 THE COURT: Doctor, if you would be so  
03:05 10 kind when they object, just hold on for one second.

11 MR. MURPHY: This is asking for  
12 testimony from a document not in evidence and we  
13 haven't had a chance to even review it yet.

14 MR. PORTIS: She just testified.

03:05 15 THE COURT: She did testify to it. I  
16 believe she was answering your question. Your  
17 objection is overruled. Doctor, please answer the  
18 question.

19 THE WITNESS: Okay. This is what it  
03:05 20 says. Do not operate machinery before you realize  
21 how your body responds to it. Once you know your  
22 body is okay with it, you can operate machinery.  
23 That's what it means.

24 BY MR. PORTIS:

03:06 25 Q. You would agree it doesn't literally say

1 that on here, correct?

2 A. No, it does not say do not drive and when you  
3 are under this medication, no.

03:06

4 Q. But you would agree that based on what you  
5 said, that if somebody had been taken those drugs  
6 for a long period of time, that they would be able  
7 to understand what their body may or may not be  
8 able to handle?

03:06

9 A. They would, but it doesn't mean they always  
10 notice.

11 MR. PORTIS: No further questions, Your  
12 Honor.

13 THE COURT: Any further questions?

14 MR. MURPHY: Briefly, Your Honor.

03:06

15 THE COURT: Yes, sir.

16 **RE-DIRECT EXAMINATION**

17 BY MR. MURPHY:

03:06

18 Q. Now it was your testimony earlier that even  
19 on the high end of Carisoprodol, the combined  
20 amount of that with Meprobamate, you would expect  
21 to see somewhere around 4.8 grams; is that right?

22 A. State your question again.

03:07

23 Q. That someone who is taking Carisoprodol on  
24 the higher end of the dosage, but still within what  
25 might be normal, you wouldn't expect to see a

1 combined level of more than about 4.8 milligrams  
2 per liter combined; is that right?

3 A. Depending at what time the blood was drawn is  
4 the fluctuation. But it should never come more than,  
03:07 5 you know, with the normal taking, it should never come  
6 above ten at all.

7 Q. And here it's clearly above ten?

8 A. It is clearly above ten.

9 Q. And whatever you were handed earlier, you  
03:07 10 don't know where that came from do you?

11 A. No.

12 Q. And you don't know if it could have just  
13 been printed up before this trial today?

14 A. Could be, don't know.

03:07 15 Q. And did it say anything about taking Xanax  
16 and Soma together and driving?

17 A. No.

18 MR. MURPHY: No further questions, Your  
19 Honor.

03:08 20 MR. PORTIS: No further questions.

21 THE COURT: Thank you, doctor. You are  
22 excused.

23 Call your next witness, please.

24 MR. MURPHY: State rests, Your Honor.

03:08 25 THE COURT: Mr. Portis?



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1 THE COURT: Thank you, ma'am. You're  
2 excused. Call your next witness.

3 MR. STEWART: State calls Dr. Guale.

4 THE BAILIFF: This witness has not been  
5 sworn in, Judge.

6 THE CLERK: Raise your right hand.

7 Do you swear the testimony you will give  
8 before the Court will be the truth, the whole truth, and  
9 nothing but the truth? If you do, say you do.

10 THE WITNESS: I do.

11 (Witness sworn in.)

12 THE COURT: Okay.

13 FESSESSEWORK GUALE,

14 having been first duly sworn, testified as follows:

15 DIRECT EXAMINATION

16 BY MR. STEWART:

17 Q. Good morning. Would you state your name for  
18 the jury, please.

19 A. My name is Fessesessework Guale. F-E --

20 Q. Go ahead.

21 A. -- S-S-E-S-S-E-W-O-R-K, G-U-A-L-E.

22 Q. And what is your profession, your profession?

23 A. I'm a forensic toxicologist.

24 Q. And would you tell the jury what that is?

25 A. A forensic toxicologist is a person with a

1 profession in forensic toxicology dealing with analyzing  
2 samples from a human body and finding out what is  
3 contained in that biology sample, and report what that  
4 is. And then that result will be used in a court of  
5 law.

6 Q. And how long have you done this?

7 A. I have been in forensic toxicology for the last  
8 15 years.

9 Q. And where do you work?

10 A. I work for the Harris County Institute of  
11 Forensic Sciences Toxicology Department.

12 Q. And could you describe some of your duties with  
13 that position at that place?

14 A. I am the toxicology analyst, corporations  
15 manager and codirector of that section. And what that  
16 entails is taking care of or managing the cases, and  
17 overlooking the case flow, and managing the employees,  
18 and also doing technical review on the cases, and also  
19 administrative, and expert review the cases and sign on  
20 the cases.

21 Q. Could you tell the jury about your educational  
22 background?

23 A. I have a medical degree, and I also have a  
24 master's degree in toxicology. On top of that, I have  
25 two board certifications, one by the American Board of

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1 Toxicology and a diploma. And the other one is by the  
2 American Board of Forensic Toxicology as a forensics  
3 toxicology specialist.

4 Q. In your training or in your education, have you  
5 ever learned about the physical affects of alcohol on  
6 the body?

7 A. Yes. When you do perform or go through  
8 master's degree, what you learn is explicit details of  
9 pharmacology. That means dealing with what drugs and  
10 chemicals do to your body, and at the same time, what  
11 does a body react to it and how it expresses out. So,  
12 one of the drugs is alcohol.

13 Q. So, it's fair to say you know quite a bit of  
14 research on this?

15 A. We do get exposed to workshops that deals with  
16 alcohol and DWI cases. We also, in my lab or Harris  
17 County Conservative Workshop about drugs, and DWI drugs  
18 and alcohol in DWI cases. And we go to several  
19 nationally renowned meetings and conferences. We do  
20 presentations there. And we do also have a requirement  
21 by our accreditation body. Every forensic toxicologist  
22 has to do a continuing education program where it is a  
23 requirement. So, we have to fulfill it by doing so.  
24 And also, we sponsor waiving ours in the lab and train  
25 others at the lab including ourselves.

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1 Q. Okay. So, let's talk about alcohol. How  
2 quickly does it absorb in the body?

3 A. Alcohol gets observed so fast in average  
4 because we all are different. The average is 90  
5 minutes, you know, between 30 and 90 minutes. But in  
6 some very, very minor instances, you know, you can  
7 absorb alcohol within 15 minutes; or in very, very low  
8 instances depending on your situation, you know, the  
9 absorption can take up to two hours. That's the maximum  
10 in the literature.

11 Q. So, is there an average absorption rate?

12 A. It's not per se a rate, because it's variable.  
13 We call, you know, 60 minutes. We use 60 minutes as an  
14 average. And then ranging between 30 to 90 minutes for  
15 population, for the 90 percent of the population.

16 Q. Are there ways in which you can tell -- let me  
17 rephrase. Have you heard of extrapolation before?

18 A. Yes, sir.

19 Q. And could you explain to the jury what that is?

20 A. Extrapolation is going back and calculating the  
21 alcohol concentration in one's body, by using the  
22 concentration at an even time. Like, for instance, if  
23 the concentration is .1 at 2:00 o'clock, and what would  
24 be the concentration at 1:00 o'clock; or going back at  
25 1:00 o'clock or 3:00 p.m. in the afternoon. So, that's

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1 what extrapolation means.

2 Q. Okay. So, you could have a blood result that  
3 was drawn at 1:00 o'clock in the morning, and he came  
4 back at .145, and the stop was at 9:00 p.m. the night  
5 before that, would you be able to do some sort of  
6 extrapolation?

7 A. Yes. Just using or assuming that person is in  
8 the elimination phase, you can use that average which is  
9 documented, and which is going to be .15 gram per  
10 alcohol or decimeter per hour elimination. Using that  
11 assumption, the alcohol would be .211 at 9:00 o'clock or  
12 9:20, 1:00 o'clock.

13 Q. And are there other facets you would like to  
14 have to do an extrapolation?

15 A. Yes. To have an -- you know, extrapolation as  
16 was thought in -- or was punished, you get the  
17 demographic data on the person. And the most important  
18 thing you need to have to start the drink, and there's a  
19 stop time to drink, so that you can assert when the time  
20 that you wanted to extrapolate to is clearly is in  
21 elimination or absorption.

22 Q. And based off the things you told us, who would  
23 have the best knowledge to give you that information, or  
24 the officer the information?

25 A. Well, whomever else is examining the person.

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1 Q. Okay. So, let's talk about alcohol in the  
2 blood. When the alcohol is drawn, or when the blood,  
3 excuse me, is drawn from somebody, does it need to be  
4 refrigerated?

5 A. It's a standard protocol, that in our lab,  
6 they -- as soon as we received the sample, and we give  
7 it a unique identifier number, and then it would be  
8 ultimately put in the refrigerator.

9 Q. Okay. And do you have only blood that might  
10 contain alcohol or ethanol?

11 A. We do receive sometimes urine.

12 Q. Okay.

13 A. And we also do -- you know, that's when we --  
14 when it -- when it is a DWI case, in our post-sequence  
15 cases, we do have other tissues that we run alcohol on.

16 Q. Okay. And do you house blood that might have  
17 other drugs in it?

18 A. Yes.

19 Q. And is it more important for certain chemicals  
20 that you're looking for to be refrigerated than others?

21 A. Yes. There are drugs or chemicals that are  
22 sensitive to a breakdown if you don't store them in a  
23 refrigerator, and to protect that and just to be sure  
24 100 percent the sample and temperature is kept. We  
25 always keep them regardless of what's -- what's in

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1    there.  We just keep them in the refrigerator.

2           Q.    Would you say it's critical to keep a blood  
3    vial that might have ethanol in it refrigerated?

4           A.    Depending on how you handle it.  Sometimes it  
5    would be okay to leave it in the room under a room  
6    temperature as long as there is preservative in it but  
7    for a full period of time.  So, like, for instance,  
8    where you are performing analysis, you would put it out  
9    of the refrigerator, and then you have to keep it at  
10   room temperature until you do your testing.  And then  
11   you have to put it back into the refrigerator.  So, that  
12   in those situations, it's not that critical.

13          Q.    So, for a blood vial -- for a vial that's  
14   containing blood that's to be tested for ethanol, what  
15   would be the affect if it were left outside on the  
16   sidewalk today, on a Houston summer-like today?

17          A.    It depends if you have a preservative or not.  
18   If you do have a preservative in that blood and you  
19   leave it out there for a day, you may not see a  
20   significant change in the alcohol.  But if you leave it  
21   for an extended period of time outside, you know, you  
22   may have a very small, from the patient, depending on,  
23   you know, what kind of, you know, germ is in there.  But  
24   it usually -- I have never -- there was a study that  
25   they did expose the blood under, you know, body



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1 temperature which is 70 degrees, which is equivalent to  
2 98 degrees outside, where they left it there for, if I  
3 remember correctly, for 72 hours or beyond. They come  
4 up -- well, at the same time, they injected it with a  
5 micro which is a fungus. And then -- but they added the  
6 preservative in there. And because the preservative was  
7 in there, the alcohol from the patient was so minimal,  
8 it was not significant at all. So --

9 Q. Okay. So, let's do the opposite. Say the  
10 blood was left outside on a winter day, a Houston winter  
11 day, say 60 degrees outside, would that have any affect  
12 on the analysis of the alcohol level, the ethanol level  
13 that's in the blood?

14 A. As long as you have the preservative in there,  
15 no.

16 Q. Okay. What if the preservative was not in  
17 there?

18 A. If the preservative is not in there, there's no  
19 telling what happens because there may be some  
20 opportunities to stick germs in there that can perform  
21 any kind of finalization. So, you don't have any  
22 control on that one. So, I cannot say yay or nay on  
23 that.

24 Q. Okay. And have you heard of the vials that are  
25 commonly referred to as the gray top vials?

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1       A.    Yes.

2       Q.    And could you explain what those are and why  
3 the gray top is important?

4       A.    We require as a protocol that all the DWI  
5 samples, the gray top, because we know the gray tops do  
6 have a preservative, which is a sodium fluoride in them,  
7 and also an anticoagulant which is a sodium oxalate so  
8 that the blood cannot coagulate. So, those two  
9 chemicals are added in the gray tubes. So, by the time  
10 we get them, and we are sure they're not coagulated or  
11 reasonable termination in that.

12       Q.    Back to your experience as your research in  
13 alcohol on the effects of the body, at an alcohol level  
14 of .1.5, how would that affect the human being?

15       A.    That's almost twice the legal limit. It's  
16 higher. And then under that -- under a person who has  
17 that alcohol in the system would be impaired because  
18 impairment includes like the sensory motor function  
19 would be impaired. Your critical judgment would be  
20 impaired. Your time and distance perception would be  
21 impaired. Your visual will be impaired because you  
22 don't have a great recovery, or your permanent vision  
23 would be impaired, especially driving at night. You can  
24 be -- you know, you can have a slurred speech or  
25 stumble, or you would have a wobbly when you were

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1 walking. And that means under those situations, you  
2 really cannot operate a motor vehicle.

3 Q. Okay. And in your opinion, based on your  
4 research you may have done, at what blood alcohol level  
5 does your body start to see effects? Let me rephrase it  
6 for you. At what level of blood alcohol concentration  
7 does the human body start to be affected?

8 A. Well, there has been a research where, you  
9 know, you will have some level of effect at a .05, as  
10 well as a .05. And sometimes, if you are actually a  
11 night drinker, you may have seen -- you may see effects  
12 even at a .02 or a .03. It just depends how often you  
13 drink.

14 Q. And are you able to, I guess, kind of scale  
15 what one drink equals on the .00 whatever, for the blood  
16 alcohol concentration?

17 A. Well, generally speaking with an average, you  
18 know, one drink can give you a concentration of .02 of,  
19 you know, grams per decimeter of alcohol in the blood.

20 Q. So, at a .145, how many drinks, in your  
21 opinion, would be -- excuse me, would have needed to be  
22 consumed to get to that level?

23 A. Depending on the time that you were drinking  
24 like, for example, if you were drinking, it was in three  
25 hours, you know, to get to that level, it probably takes

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1 about seven to eight drinks. But if you're taking  
2 longer time, like five, six hours or sitting in a bar  
3 and drinking for longer than three or four hours, it may  
4 take about ten. Because by the time, you know, just  
5 drinking and you are also eliminating part of the  
6 alcohol. So, the longer the drinking time, the more  
7 drinks that you need to get to that level.

8 MR. STEWART: Pass the witness, Judge.

9 THE COURT: You may proceed.

10 MR. TRENT: Thank you, Judge.

11 **CROSS-EXAMINATION**

12 BY MR. TRENT:

13 Q. Is it Dr. Guale?

14 A. Yes, sir.

15 Q. My name is Mike Trent, and I represent Warren  
16 White. I just have a few questions for you. Okay.  
17 First of all, let's start by saying, you have no idea  
18 what the blood alcohol level of my client was at the  
19 time that he was stopped, do you?

20 A. No, I don't.

21 Q. You don't have any -- you can't offer this jury  
22 any insight on what his blood alcohol level was at the  
23 time he was driving, can you?

24 A. No.

25 Q. Now, you have offered some possible

1 extrapolation on what it could be under certain  
2 circumstances, right?

3 A. Yes.

4 Q. And I think you offered, if you assume that a  
5 person was in elimination, and they were tested, stopped  
6 at 9:00 p.m., tested at 1:00 p. -- 1:00 a.m., and the  
7 test comes out .145, I think you said assuming  
8 elimination, it might be around .21; is that right?

9 A. Right.

10 Q. Okay. If you assume -- if you don't assume  
11 elimination, though, those numbers go out the window,  
12 right?

13 A. Yes.

14 Q. There are plenty of scenarios in which someone  
15 can, you know, either ingest a lot of alcohol or be at a  
16 level under .08 with all those other variables the same,  
17 right? When I say, all the other variables, I mean the  
18 time of stop and the time of blood draw.

19 A. Would you rephrase the question, please?

20 Q. Okay. I mean, if a person -- if you still  
21 assume driving or stopped time of 9:00 p.m. and a blood  
22 draw of 1:00 a.m., that it's a .145, there are scenarios  
23 under which they can be under the legal limit driving,  
24 correct?

25 A. I don't see that.

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1 Q. You don't see any way of that happening?

2 A. No.

3 Q. How much alcohol would have to ingest right  
4 before they were stopped in order to get to a .145 in  
5 four hours?

6 A. If you are asking me how much drinks they must  
7 have had right before he was stopped which is 9:30,  
8 9:21?

9 Q. Let's say 9:00 p.m.

10 A. Okay, 9:00 p.m. Let's just assume figuratively  
11 he had -- for the person to get .145, I would say a  
12 minimum of seven or eight, right?

13 Q. Right.

14 A. Okay. So, let's assume that he had all of  
15 that. And humanly possible, how long did it take to  
16 take all of that or, you know, like seven or eight  
17 drinks humanly possible?

18 Q. Sure.

19 A. How long?

20 Q. Well, you're the witness. I'm not. So, let's  
21 assume --

22 A. Assuming -- let's assume that. I just want you  
23 today, and so that I can give the right --

24 Q. I mean, let's assume the person guzzles it --

25 A. Okay.

1 Q. -- I mean, just drinks a bunch of alcohol all  
2 at once --

3 A. Okay.

4 Q. -- are you saying that it's impossible for them  
5 to get to that level if their blood is tested four hours  
6 later?

7 A. Okay. Let's assume that he guzzled it, okay,  
8 at 9:00 o'clock. And then he got stopped at 9:21. And  
9 then 1:00 o'clock, he took -- so, from 9:00 o'clock what  
10 the maximum hour that you can give for absorption is  
11 what's occurring is two hours. Let's take that  
12 scenario, which is unusual, but just to give the benefit  
13 of the doubt to the defendant, we're going to do two  
14 hours. Okay. So, two hours means 11:00 o'clock. By  
15 11:00 o'clock, he has to stopped absorbing, right?

16 Q. You're the expert, not me.

17 A. Okay. So, from 11:00 o'clock to 1:00 o'clock,  
18 he should be eliminated, right?

19 Q. Assuming two-hour absorption, right.

20 A. Assuming two-hour absorption. So, by two hours  
21 of absorption, he may have to come back to a larger  
22 amount of .145 considering he should be eliminating for  
23 two hours, right? If he was eliminating for two hours,  
24 then he should have been higher than .145 by 11:00  
25 o'clock. So --



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1 Q. I'm not sure I follow that, but.

2 A. So, you go back to when he was stopped.

3 Q. No, I don't understand. I mean, you're saying  
4 it's impossible for a person to drink enough to be at a  
5 .145 four hours later. Is that your testimony, yes or  
6 no?

7 A. Rephrase it again.

8 Q. All right. Are you saying that it's impossible  
9 for a person to drink enough to be at a .145 four hours  
10 after the stop?

11 A. He can't drink that much. It's possible.

12 Q. He can drink that much, and a person can be  
13 under the legal limit under that fact pattern, right?

14 A. Yes.

15 Q. I mean, you can -- you can adjust the times of  
16 ingestion and the times of absorption depending on the  
17 person to where -- I guess my point is, they're not  
18 necessarily over the legal limit, are they, at the time  
19 of driving?

20 A. If you're assuming the person that does have a  
21 guzzled effect, that he did it at 9:00 o'clock, and you  
22 have that indication or the open container, or something  
23 in there, or he said, you know --

24 Q. Well, these are just hypotheticals.

25 A. Yeah.

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1 Q. I'm just talking math.

2 A. Yeah. I know.

3 Q. Okay. So, it's a follow-up. It is possible  
4 for a person to be under the legal limit even if their  
5 blood draw indicates .145 four hours later, isn't it?

6 A. If you're assuming guzzle effect, yes.

7 Q. Assuming that or other things as well, right?  
8 I mean, there are other scenarios in which a person can  
9 be under the legal limit four hours later, right?

10 A. Correct.

11 Q. Okay. Now, to get to .145, you're saying seven  
12 or eight drinks, correct?

13 A. Correct.

14 Q. Now, even that is adjustable according to how  
15 long they are drinking, right?

16 A. Yes, sir.

17 Q. Because even as you're drinking, you're  
18 absorbing and eliminating.

19 A. Yes, yes.

20 Q. All right. So, I want you to assume for my  
21 fact pattern, let's say that ingestion of alcohol begins  
22 at 7:00 p.m. --

23 A. Okay.

24 Q. -- stops at 8:30, time of driving and stop  
25 around 9:00. How much would that person have had to

1 ingest -- and I can give you, if you need the weight or  
2 anything, I can provide that. But I would like for you  
3 to calculate for the jury how much that person would  
4 have to ingest to be at a .145 four hours later.

5 A. Okay. Give me a scenario.

6 Q. Drinking begins at 7:00.

7 A. 7:00 start time, okay.

8 Q. Ends at 8:30.

9 A. Okay.

10 Q. Time of stop 9:00 p.m., time of blood draw 1:00  
11 a.m., and the person weighs 220 pounds. I don't know if  
12 that affects it or not, but I'll give you that.

13 A. That's fine. So, first, we have to calculate  
14 how many drinks the person must have drank to get to,  
15 which is one hour, 1:00 a.m. which is 0.145. Do we  
16 agree?

17 Q. And let me ask you about that assumption just  
18 for a second before you do your calculation. When you  
19 say one drink roughly equals .02, are you referring to,  
20 when you're talking about mixed drinks, is that one  
21 ounce of alcohol?

22 A. No. It's when we call one standard drink. One  
23 standard drink is -- usually, it would have a .6 ounce  
24 of alcohol. One standard drink is one beer or one wine  
25 which is 5 ounce of wine, or 1.5 ounce of liquor.

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1 Q. 1.5 ounces of liquor.

2 A. Liquor, yes.

3 Q. Okay. All right. Go ahead.

4 A. Okay. So, to calculate this, you know, how  
5 much drink the person must have had, I would have to use  
6 0.145 as a concentration of blood and capital gain as  
7 grams in alcohol, that person has to consume. That has  
8 to be divided. And we're just using a weight mark  
9 format, okay. It has to use 220 pounds, I have to  
10 change it to a kilogram, which is going to be --

11 Q. A hundred?

12 A. -- 100, yeah -- 100 times the witness, with  
13 more factor which is .68. That is distribution on a  
14 male. That number comes from a mid mark in question.  
15 So, and then minus -- I'm going to use the .015 bridge  
16 elimination rate for all the times that he's been there.  
17 And at the time of the -- the start time would be 7:00,  
18 and the draw is 1:00. So, there are six hours in this  
19 calculation.

20 Q. Okay.

21 A. Okay. We're going to do six times 0.15, 0.015.  
22 So, 0.145, plus 0.09 would be 0.235 which equals to A,  
23 which is in grams alcohol, divided by .68, which is  
24 going to be 68. And so, this will be 6806038. And then  
25 A would be, let's see, 80 times .235 is equal to 159

1 grams, okay, 159 grams. You know, we have to change it  
2 into ounce. We have to divide that by, you know, 123.36  
3 ounce, which is equal to 6.84. And then that would be  
4 how many drinks? 11.4 drinks.

5 Q. Okay. So, 11, 12 drinks to get to the --

6 A. Yeah, because you see, the longer the hour --

7 Q. Right.

8 A. -- you know, the higher the number of drinks.

9 Q. Right. So, if we assume that the blood test is  
10 correct, and those other variables that I gave you, that  
11 person would have had to consume almost a dozen drinks  
12 to get there?

13 A. Beginning at 7:00 o'clock.

14 Q. Right. Okay. Now, I think you testified  
15 earlier that at a .145, you would expect to see signs of  
16 impairment, correct?

17 A. Correct.

18 Q. Symptoms like -- you can give them again,  
19 disorientation maybe?

20 A. Yeah. You can feel disoriented and feel dizzy.  
21 You can feel, you know, you can have slurred speech.

22 Q. Okay. And what about motor coordination?

23 A. Yes, motor coordination can be affected. You  
24 can be ataxic or not walking right or stumbling to fall.

25 Q. Balance can be affected, right?

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1 A. Balance, yes.

2 Q. Equilibrium?

3 A. Equilibrium.

4 Q. Perceptions?

5 A. Yes.

6 Q. Now, do you have any -- now, I think you said  
7 that your doctorate is in veterinarian medicine.

8 A. Yes.

9 Q. Okay. So, animals?

10 A. Animals.

11 Q. Okay. Do you have any familiarity with  
12 diabetes in humans or the effects of it?

13 A. Yes.

14 Q. Okay. Can some of the symptoms that we talked  
15 about be duplicated by diabetes or by a diabetic  
16 episode?

17 A. There are two scenarios in diabetic episode.  
18 One is hypoglycemia, or where your blood sugar is very  
19 low. And the other one is hyperglycemia when your blood  
20 sugar is very high. If you suffer from hypoglycemia or  
21 a low sugar level, your driving can be impaired. If you  
22 have a low sugar level, yes, you can have an impaired  
23 driver.

24 Q. And are you suggesting that that can't be the  
25 case with hyperglycemia?

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1 A. No, sir.

2 Q. You're saying that hyperglycemia does not have  
3 any effect on impairment of driving?

4 A. No, sir.

5 Q. Really? What do you base that on?

6 A. Well, because when you think about why is it  
7 that you would have dizziness, you know, or weak bodily  
8 functions, or all of the effects of the driving  
9 impairment associated with low glucose, it's because  
10 your brain does not get enough glucose. Because your  
11 brain does not get enough glucose, it does not perform  
12 in the normal functions that is expected to be done by  
13 your body. So, it really limits impairment.

14 Q. So, I mean, whose findings would you put ahead  
15 as more authoritative on this subject, your opinions, or  
16 the opinions of the American Medical Association, the  
17 American Diabetes Association, webmdmedicine.net? I  
18 mean, who do you think speaks more authoritatively on  
19 the subject of hyperglycemia?

20 A. What do they say?

21 Q. Well, they say that it can.

22 MR. STEWART: Objection, Judge. Counsel  
23 is testifying.

24 MR. TRENT: Well, I mean, let me cross --  
25 ask it this way.



1 THE COURT: Sustained. I'm sorry. Go  
2 ahead.

3 MR. TRENT: I'm sorry.

4 Q. (BY MR. TRENT) Those organizations that I've  
5 listed do say that the symptoms of hyperglycemia --

6 MR. STEWART: Objection, Judge. Counsel  
7 is testifying.

8 THE COURT: Sustained, sir. It's not in  
9 evidence.

10 MR. TRENT: All right.

11 Q. (BY MR. TRENT) Do you know what they have to  
12 say about hyperglycemia?

13 A. I know what hyperglycemia is, but I don't know  
14 what they say about how it is related to driving  
15 impairment.

16 Q. Okay. Or overall, disorientation, dizziness,  
17 confusion, things like that. You're saying -- your  
18 testimony under oath is that those things cannot be a  
19 symptom of hyperglycemia. Are you going to commit to  
20 that?

21 A. Hyperglycemia is --

22 Q. That's a yes or no. Are you testifying under  
23 oath that hyperglycemia cannot cause those symptoms,  
24 dizziness, disorientation or confusion?

25 A. Dizziness, disorientation, and confusion can be

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1 caused by hyperglycemia. So, we're talking about  
2 impairment, driving impaired.

3 Q. Okay. So, that's a yes.

4 THE COURT: Why don't you let her answer  
5 the question before you continue on.

6 MR. TRENT: I apologize, Judge.

7 Q. (BY MR. TRENT) So, you're saying that confusion  
8 is not something that can impair a driver, yes or no?

9 A. When you say --

10 Q. Yes or no?

11 A. It can go either way.

12 Q. Confusion cannot impair a driver?

13 A. Confusion about what? I can give you a number,  
14 and you can get confused on a number. It doesn't mean  
15 it affects your driving. So confusion would be --

16 Q. Okay. Let me ask it this way.

17 A. Yes.

18 Q. Are you testifying to this jury, that confusion  
19 is not an impairment to drivers, yes or no?

20 A. Not always.

21 Q. Not always. How about dizziness, are you  
22 telling this jury, that under oath, that dizziness is  
23 not an impairment to drivers?

24 A. Not always.

25 Q. Disorientation, not an impairment to drivers?

1 A. Not always.

2 Q. Well, alcohol is not an impairment to drivers,  
3 is it, not always, right?

4 A. Not always.

5 Q. And again, so, that we're clear, you cannot  
6 tell this jury beyond a reasonable doubt what Warren  
7 White's blood alcohol level was at the time he was  
8 driving, can you?

9 A. No.

10 MR. TRENT: Pass the witness.

11 REDIRECT EXAMINATION

12 BY MR. STEWART:

13 Q. Dr. Guale, let me use the hypothetical counsel  
14 just gave you, the start time of drinking at  
15 7:00 o'clock, ending at 8:30, stopping at 9:21, with the  
16 blood drawn at 1:00. You said that would be 11  
17 drinks --

18 A. Yes.

19 Q. -- to be at a .1.5?

20 A. Yes.

21 Q. So, given -- given those facts, what would the  
22 blood alcohol level extrapolate back to at the time of  
23 driving? I believe the weight that was given was  
24 220 pounds.

25 A. .21.

1 Q. Okay.

2 MR. STEWART: Pass the witness, Judge.

3 MR. TRENT: No further questions.

4 MR. STEWART: Nothing further, Judge.

5 THE COURT: All right. Thank you, ma'am.

6 You're excused.

7 All right. Call your next witness, sir.

8 MR. STEWART: State rest at this time,  
9 Judge.

10 MR. TRENT: Judge, I have a motion outside  
11 the presence of the jury.

12 THE COURT: All right. Ladies and  
13 gentlemen, we're going to take a quick five-minute  
14 break.

15 (Jury not present)

16 THE COURT: Be seated.

17 MR. TRENT: At this time, Judge, the  
18 defense would move for an instructed verdict of not  
19 guilty. The State has not put forth a prima facie case  
20 on direct. We're asking for that verdict because no  
21 reasonable jury can convict Mr. White on the testimony  
22 that's been adduced.

23 THE COURT: All right. And that motion is  
24 denied.

25 MR. TRENT: Can you give me just a minute?

	1	Excerpt Testimony January 27, 2016
1	REPORTER'S RECORD	
2	VOLUME 1 OF 1 VOLUMES	
3	TRIAL COURT CAUSE NO. 1999133	
4	THE STATE OF TEXAS ) IN THE COUNTY CRIMINAL	
5	)	
6	vs. ) COURT AT LAW NUMBER FIVE (5)	
7	)	
8	DANIEL BRYANT IMRECKE ) HARRIS COUNTY, TEXAS	
9		
10		
11	EXCERPT TESTIMONY	
12		
13		
14	On the 27th day of January, 2016, the following	
15	proceedings came on to be held in the above-titled	
16	and numbered cause before the Honorable Margaret S.	
17	Harris , Judge Presiding, held in Houston, Harris	
18	County, Texas.	
19	Proceedings reported by computerized stenotype	
20	machine.	
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23		
24		
25		
	Ramona St. Julian Sonnier, CSR Certified Shorthand Reporter	

	2	Excerpt Testimony January 27, 2016
1	APPEARANCES	
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## VOLUME 1

## EXCERPT TESTIMONY

January 27, 2016

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## EXHIBITS OFFERED BY THE STATE

EXHIBIT	DESCRIPTION	OFFERED	ADMITTED	VOL.
A	Retrograde Alcohol Extrapolation Report	16	18	1
19	PowerPoint - Alcohol Analysis by GC Headspace	63	63	1
20	HCIFS Laboratory Report	77	138	1
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## EXHIBITS OFFERED BY THE DEFENSE

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3-9	HCIFS Gas Chromatogram	83	83	1
3	HCIFS Gas Chromatogram	143	143	1
4	HCIFS Gas Chromatogram	143	143	1
5	HCIFS Gas Chromatogram	143	143	1
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1 THE COURT: Raise your right hand.  
2 (Witness sworn)  
3 THE COURT: Great. Come on up here.  
4 We're going on the record, outside the presence of  
5 the jury, in the State of Texas versus Daniel Bryant  
6 Imrecke, on a Gatekeeper Hearing with regard to  
7 certain testimony of this witness that's being  
8 proposed by the State.  
9 Ms. Williams, please proceed with  
10 regard to this scope. Thank you.  
11 MS. WILLIAMS: Yes, Your Honor.  
12 FESSESSEWORK GUALE,  
13 having been first duly sworn, testified as follows:  
14 DIRECT EXAMINATION  
15 BY MS. WILLIAMS:  
16 Q. Could you please introduce yourself?  
17 A. My name is Fessessework Guale.  
18 Q. And what is your occupation?  
19 A. I'm a forensic toxicologist.  
20 Q. What are some of your responsibilities in  
21 that position?  
22 A. I work for the Harris County Institute of  
23 Forensic Sciences. I am the Analytical Operations  
24 Manager of the toxicology section. I manage the  
25 day-to-day activities of the lab; I supervise the

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1 employees. I make sure the cases that we received  
2 took the regular testing dictated by the SOPs, and I  
3 make sure all the work is done, and the case is  
4 signed out.  
5 Q. Okay. And how long have you been so  
6 employed?  
7 A. Nine years.  
8 Q. And so, what type of background do you  
9 have -- scratch that.  
10 What type of educational background do  
11 you have?  
12 A. I have a degree of the Doctorate of  
13 Veterinary Medicine, and I also have a Master's  
14 Degree in Toxicology. And I'm double-board  
15 certified, one, by the American Board of Veterinary  
16 Toxicology; and another one by the American Board of  
17 Forensic Toxicology.  
18 Q. And in your current position, have you had  
19 an opportunity to participate in any studies or to  
20 publish any of your own work?  
21 A. Yes, I have published.  
22 Q. And would you mind describing some of those  
23 publications, and what they were regarding?  
24 A. The latest -- the previous one, it will  
25 be -- I have a couple of publications on Method

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1 Development, that means analytical methods, how to do  
2 testing. And then latest published method that I  
3 have is Screening Method for Designer Drugs Using  
4 State-of-the-Art Instruments such as TOF.

5 Q. Okay. And so, let's discuss a little bit  
6 about blood analysis. What role do you play in  
7 regards to blood analysis, in terms of the alcohol --  
8 I'm sorry, the ethanol concentration?

9 A. We do have a lot of internal trainings and  
10 external trainings about, you know, alcohol analysis;  
11 what are the commonly, you know, state of the art  
12 methods that we employ in our laboratory.

13 We use gas chromatography, which is  
14 the latest -- or the standard for alcohol. And we  
15 implement the latest method. And we do have a high  
16 standard of quality because we're accredited by two  
17 accreditation boards, that we're required to perform  
18 certain standards, which is the highest standard, and  
19 we implement those.

20 And we do train our analysts very  
21 well, and they are competent in performing the job.  
22 They do have an excellent proficiency to do; internal  
23 proficiency to do, and they are very competent  
24 individuals. And we stand by our work, with the  
25 high-quality work.

1 Q. Okay. And so you mentioned the individuals  
2 who do the actual analysis, as far as -- so you have  
3 your analyst do the analysis, what role do you play  
4 in regards to that?

5 A. Mostly in the training. I write the SOPs,  
6 The Standard Operation Procedures, and train  
7 analysts.

8 Q. Okay. And so, throughout your training and  
9 through some of your research and experience, did you  
10 receive any training or education regarding the  
11 impact of alcohol on the body?

12 A. Yes.

13 Q. And what kind of training and education  
14 have you received on that subject?

15 A. When you do -- when I was in veterinarian  
16 college, we do have a course, a toxicology course.  
17 And that course -- in that course, you learn about  
18 the effects of drugs, chemicals, everything,  
19 including air and the water. And when you do a  
20 Master's in Toxicology, you're focusing on the  
21 toxicity of every drug and alcohol and intoxicants in  
22 the environment, and every intoxicant which is on the  
23 face of the earth. So, one of them is alcohol, which  
24 is actually a C-plus chemical on earth. So, I  
25 learned -- or we learned deeply about the effects of

1 alcohol, then, when I was doing my master's. And,  
2 actually, on the workforce, that's practically  
3 applying what I learned there.

4 Q. Okay. And so, in your experience is  
5 there -- we understand that when you're analyzing the  
6 blood for ethanol, that analysis is done from the  
7 time of the blood draw. Is there any way to  
8 determine what that individual's ethanol level or  
9 blood-alcohol concentration may have been at the time  
10 that they were driving?

11 A. Yes.

12 Q. And what is that called, or how do you do  
13 that?

14 A. It's called "extrapolation." So, the first  
15 thing that you need is all their information. The  
16 first thing in your alcohol analysis -- or you have  
17 to know what level of alcohol is in that person's  
18 blood at a certain time. And then, for that, you  
19 need the demographic information of that person; that  
20 includes weight, height, the gender -- male or  
21 female. And then, whether they ate or not ate that  
22 day, all those informations are vital. And you just  
23 plug that into a formula, which has been established  
24 since long time ago.

25 Alcohol has been studied for more than

1 a hundred years. There's a formula derived -- a  
2 published extrapolation formula, you plug that  
3 information in that formula, and then the formula  
4 will tell you -- or calculate it for you, at what  
5 time and what level the alcohol would be in the  
6 person's system.

7 Q. And so, you mentioned some of these  
8 publications, and you described that there's a  
9 formula. Can you explain to us a little bit more  
10 about that formula and, kind of, how it works in  
11 determining -- you gave it to us, you know, broad,  
12 but just -- can you describe the formula a little bit  
13 more?

14 A. The original formula -- all the other, you  
15 know, little formats are done; it's called "The  
16 Widmark Formula." And that's, actually, it's a  
17 pharmacokinetic study. The way they study it is,  
18 they will give a person a certain amount of alcohol,  
19 and then they will monitor how much would be in the  
20 system by taking the blood at the certain period of  
21 time, and then make a calculation. You know, how  
22 much is absorbed, and how much is eliminated at what  
23 rate. So, that formula is derived from experimental  
24 studies so that we can use it now.

25 Because as any medication or as any

1 food or beverage that you are taking in, the body is  
2 going to absorb it, like, alcohol is going to be  
3 absorbed. The body will be absorbing it, and it will  
4 be distributed all over your body through the blood.  
5 And then, once it's distributed through the body, and  
6 then, it goes through metabolism, that means it  
7 changes by the liver. The liver has got enzymes to  
8 break the drug down. And then, it will eliminated at  
9 a certain rate by, you know, urine and breath and  
10 other sources of elimination.

11 So, all these are a hundred year's  
12 worth of experiments to derive that formula. And so,  
13 you just plug in the weight and all the demographic  
14 data and the times, and it will calculate it for you.

15 Q. Okay. And so within your agency, once you  
16 receive that information, you mentioned you plug it  
17 into something?

18 A. Yes.

19 Q. And what is that program called?

20 A. There's a software called "BAC-Tracker  
21 Software," where all these intricate formulas are put  
22 together so that the user can just put that  
23 information in. It's a very simple arithmetic.  
24 Like, it's just like using a calculator. You know,  
25 the formulas are plugged into the calculator, and the

1 software has got those formulas plugged in in there,  
2 and the software just calculates it out for you. But  
3 you have to put the information that needs to be put  
4 in. So, that's a software that we use instead of  
5 using a manual calculation and taking a lot of time.  
6 The software just calculates it for you; so, we call  
7 it BAC-Tracker.

8 Q. Okay. And so let me give you a  
9 hypothetical --

10 A. Okay.

11 Q. -- so we can test this. And I believe you  
12 mentioned you needed some variables?

13 A. Yes.

14 Q. And amongst those variables, do you need  
15 weight?

16 A. Weight, height, gender, what time the  
17 person start drinking, and what time the person  
18 stopped drinking. What time was the blood draw,  
19 whether the person was eating or no eating, when you  
20 know, drinking, and what time of the incident.

21 Q. Okay. So, let me give you a hypothetical  
22 now. I have a male about, maybe, around age 30, 180  
23 pounds, six feet. The time of the blood draw was at  
24 2:36 a.m. The time of the stop was at 1:41 a.m. The  
25 breath results -- sorry, the time of the first drink



1 was 6:00 p.m.; the time of the last drink was 12:00  
2 a.m. and the blood-alcohol concentration was a .136.  
3 Given that information, would you be able to make an  
4 educated determining of what the extrapolation could  
5 be?

6 A. Yes. Can I have my copy?

7 MS. WILLIAMS: Your Honor, may I  
8 approach the witness?

9 THE COURT: Yes.

10 Q. (BY MS. WILLIAMS) All right. So I have  
11 here what's been marked for demonstrative purposes as  
12 State's Exhibit No. 5.

13 THE COURT: Excuse me, you already  
14 have a State's Exhibit No. 5 in evidence. And so,  
15 why don't we give it a different number, if you'd  
16 like, an "A," a letter, so that we know to  
17 distinguish it.

18 A. So, based on the information that you --

19 MS. WILLIAMS: Okay. So, it's going  
20 to State's Exhibit A?

21 THE COURT: Yes.

22 Q. (BY MS. WILLIAMS) So, you have in front of  
23 you State's Exhibit A marked for demonstrative  
24 purposes. Do you believe this would aid the Court in  
25 understanding what you're about to explain?

1 A. Yes.

2 Q. Okay.

3 MS. WILLIAMS: Your Honor, at this  
4 time, I would like to move that State's Exhibit A be  
5 introduced into evidence for the purposes of this  
6 hearing.

7 THE COURT: All right. So, are you  
8 going to show it on the overhead or what?

9 MS. WILLIAMS: Yes, Your Honor, I'll  
10 show it on the overhead.

11 THE COURT: Okay. Is there any  
12 objection for purposes of this hearing?

13 MR. FLOOD: Well, I'd object because  
14 it's based on information -- two objections. One,  
15 it's based on information that's not presented in  
16 evidence. Specifically, the height and the weight of  
17 the individual, which are factors that the witness  
18 said she needed to make this calculation.

19 And two, that when asked if she could  
20 make this calculation, she needed to look at the  
21 computer program printout in order to do so. And, I  
22 think, the purpose of this hearing is to question the  
23 witness' personal knowledge and ability to be able to  
24 do it and explain it to the Court and not rely on a  
25 computer-generated printout. But my main objection

1 is, this is assuming hypothetical facts that were not  
2 admitted in evidence.

3 THE COURT: And to that objection your  
4 response is?

5 MS. WILLIAMS: Your Honor --

6 THE COURT: I didn't recall that  
7 testimony either.

8 MS. WILLIAMS: Your Honor, we were  
9 using this solely as a hypothetical to explain the  
10 science behind the retrograde extrapolation. And so,  
11 right now, it's solely a hypothetical.

12 THE COURT: Okay. Let me ask this:  
13 If we don't have that in evidence -- and I'm guessing  
14 the analyst and this witness don't know the defendant  
15 to be able to give that information, how is this  
16 relevant in our trial?

17 MS. WILLIAMS: Your Honor, the  
18 officer, is currently on recall. And so, we would  
19 need to recall the officer to have that testimony  
20 entered on the record.

21 THE COURT: The officer's here?

22 MS. WILLIAMS: I can get him here.

23 THE COURT: Well, considering we're  
24 supposed to be starting with the actual trial in  
25 front of the jury right now unless he's here when the

1 jury comes out, it's not going to work out so well  
2 for you.

3 For purposes of this hearing, just to  
4 try to move forward, I'll allow this exhibit. But I  
5 can promise you, that if you're not able to prove up  
6 the Mata factors, then, it's not coming in.

7 MS. WILLIAMS: Yes, Your Honor.

8 THE COURT: All right. Proceed,  
9 please.

10 MS. WILLIAMS: Your Honor, I have an  
11 additional copy of that report, would you like me to  
12 publish the actual State's Exhibit A or use a  
13 duplicate?

14 THE COURT: Yes, I would.

15 MS. WILLIAMS: May I approach the  
16 witness?

17 THE COURT: It doesn't matter, either  
18 one. Just -- let's go.

19 MS. WILLIAMS: Okay.

20 Q. (BY MS. WILLIAMS) All right. Dr. Guale,  
21 can you please -- you mentioned that you entered it  
22 into a program called "BAC-Tracker"?

23 A. Yes.

24 Q. And that offers you an analysis of what the  
25 potential breath -- blood-alcohol concentration could

1 have been at the time of driving?

2 A. Yes.

3 Q. Can you please point to -- using the

4 exhibit -- point to where that is on the exhibit?

5 A. It's right here (indicating). BAC at grams

6 per deciliter at the time of interest, which is 1:41.

7 The BAC would have been .152 with a range being 0.012

8 of uncertainty.

9 Q. Okay. And --

10 THE COURT: What is the last part?

11 THE WITNESS: This is a range

12 plus/minus the .152. So, to give with that

13 certainty, it could be plus 152, 0.012, or minus

14 0.012. So, it's giving you a range. It's not a

15 single point. It's giving a range plus/minus .012.

16 Q. (BY MS. WILLIAMS) Okay. And so -- now that

17 we're able to look at this document, you mentioned

18 certain formulas were mentioned to make this

19 determination. As far as this analysis, what

20 formulas were used?

21 A. For this one, I used all the formulas,

22 that's the standard way of doing it. To give the

23 defendant the benefit of the doubt, you use all

24 formulas, and that would increase the uncertainty.

25 That way, the range will be bigger. So, I used all

1 these, six formulas.

2 And the difference is really, really

3 very small. But, you know, when this comes to the

4 numbers, it may be significant. So, I used all these

5 formulas, and the software uses the uncertainty with

6 each formula and gives you the range.

7 Q. And you mentioned that you used all the

8 formulas?

9 A. Yes.

10 Q. And what does that mean in terms of how

11 this number came be -- does it mean that each formula

12 is different, or is there a certain constant that's

13 different amongst the formulas?

14 A. Yes. The constant amongst the formulas is

15 probably the first -- the Widmark would use only the

16 weight, but the other would consider, you know, the

17 sex. And the other one would consider the body mass

18 index, which is different from using a weight. The

19 other one will put the body mass index, and the

20 differences are listed here, actually. If you look

21 at them, right here (indicating) are the differences.

22 So, in the Widmark, the volume of

23 distribution is .68; the Watson is .67; the Forrest

24 .72; the Seidl is .77; the Ulrich is .74, these are

25 the differences. And Posey-Moz one, is the latest



1 one where it becomes .718.

2           So, if you look at this, the  
3 difference is very very small, but when you increase  
4 the variables, your uncertainty becomes larger. That  
5 means you get a very large range, which gives, you  
6 know, the benefit of the doubt larger, not smaller.  
7 If I use only one, the uncertainty would be narrower.  
8 So, this is to give the benefit of the doubt for the  
9 defendant. Use six formulas; have a larger range,  
10 and see where the extrapolation comes in.

11       Q.    Okay. And so, the formula that the  
12 BAC-Tracker uses uses all those formulas?

13       A.    Yes.

14       Q.    Why does this program use all of these  
15 formulas instead of choosing one or the other?

16       A.    The same reason I exactly say, because to  
17 increase all the variables. Like, everybody is  
18 different: the weight is different; the body mass  
19 index, because of the proportion between fat and  
20 water in your body that comes, you know, the six  
21 differences. And all the other variables are  
22 included in here; so, there's no variable untouched.  
23 That's why, you know, it's better to use all of  
24 them -- to include all of the variables.

25           THE COURT: Excuse me. I have a

1 question. I'm just going to jump in.

2           How can you use the one that requires  
3 the BMI, since we don't have that?

4           THE WITNESS: It's from the weight.

5           THE COURT: It guesimates it from --

6           THE WITNESS: From the weight, yes.

7 That formula has got a factor to give a range of BMI  
8 for that weight. So, that's one of the formulas that  
9 included in there.

10          THE COURT: So, even though others  
11 include the height and weight, that one then makes a  
12 guesstimate from those?

13          THE WITNESS: From the formula.

14          THE COURT: And which one is that?

15          THE WITNESS: I think it was Seidl

16 that would have the BMI measurement. I have the  
17 scientific published paper that I just give to  
18 counsel.

19          THE COURT: Okay. If we gave you a  
20 calculator, would you be able to do one of those  
21 equations with the information you're given without  
22 using BAC-Tracker?

23          THE WITNESS: I could only assume  
24 elimination. I could plug in this number and  
25 calculate to backtrack the number.

1 THE COURT: No, not using this.  
2 THE WITNESS: Yeah, I can do manual  
3 calculation using this formula.  
4 MR. FLOOD: Judge, just to clarify, we  
5 had a conversation in the back. Her calculations --  
6 and correct me if I'm wrong -- are based on  
7 Mr. Imrecke already being in the elimination phase.  
8 And one of the other variables is very important is  
9 the time of eating and what was eaten. The testimony  
10 was only: he had lots of chips and some sandwiches.  
11 So, even if the officer's brought back, they're not  
12 going to be able to fill in that factor. And she's  
13 included a 27-minute time of absorption.  
14 THE COURT: Is this an objection or --  
15 MR. FLOOD: I just -- I have this --  
16 THE COURT: You will get to cross.  
17 MR. FLOOD: It's a question, though,  
18 that she told me she can use the formula assuming  
19 elimination; but cannot calculate it without  
20 BAC-Tracker if he was still in the absorption phase.  
21 And that's why -- it just helps save time because she  
22 -- so -- I mean, I guess, I'll just stick with cross.  
23 THE COURT: I am curious, because, at  
24 one point, I wrote down that it was important -- and  
25 I remembered this anyway -- to know what they ate and

1 when; is that correct?  
2 THE WITNESS: Yes, you can plug in  
3 this.  
4 THE COURT: What if we don't know?  
5 THE WITNESS: You take an average. If  
6 you don't know, you take an average.  
7 THE COURT: An average of what?  
8 THE WITNESS: There are absorption  
9 constants that are plugged into the formula.  
10 THE COURT: So, we're supposed to  
11 assume something so we can get a range.  
12 THE WITNESS: Yes. Like for  
13 instance --  
14 THE COURT: Excuse me. Which is  
15 exactly what Mata says you can't do, isn't it?  
16 MR. FLOOD: That is correct, Judge.  
17 Can I just read you that one section?  
18 THE COURT: No, I remember it.  
19 I'm asking them.  
20 MR. FLOOD: That's correct, Judge.  
21 THE COURT: It sounds like your  
22 witness is doing, precisely, what Mata told us that  
23 we cannot do. And that's, guesstimate an average.  
24 Have y'all read that recently? maybe?  
25 Mata?

1 MR. SAWTELLE: I've read it.

2 THE COURT: Recently?

3 MS. WILLIAMS: Your Honor, with regard  
4 to the constant, right, whether the slow or fast  
5 absorption rate -- you're asking us whether she can  
6 guesstimate that average; is that what the question  
7 was?

8 THE COURT: I don't want  
9 guesstimations. I want a scientific calculation  
10 based on factors that our higher courts have told us  
11 are required before we're allowed to do this. And my  
12 recollection is that the whole issue in this -- am I  
13 remembering that the analyst was named McDougall or  
14 something --

15 MR. FLOOD: That's correct.

16 THE COURT: Yeah, that's it. -- and  
17 he testified to, Well, depending on these things that  
18 I don't know, it could be anywhere from this to this.  
19 And they said you can't do that under our law. And  
20 they would not allow it. And they set out the  
21 factors that are required.

22 And that's why I'm asking y'all if  
23 you've read Mata, recently, before this hearing?

24 MS. WILLIAMS: No, Your Honor, I  
25 didn't. But I was asking in regards to the constant.

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1 THE COURT: I got that. And, yet, I'm  
2 stuck on my issue here. And this is what y'all are  
3 going to have to answer to get past this hearing.  
4 I'm trying to help you out by pointing to where I'm  
5 having a difficulty. So, I'm going to take a couple  
6 minutes of recess and ask you to read Mata. You can  
7 borrow this one, and I'll look at my copy.

8 Do y'all want to read this? I'm  
9 offering it to you.

10 MR. SAWTELLE: We have it.

11 THE COURT: Perfect.

12 MR. FLOOD: May I say one short thing  
13 with respect to Mata?

14 THE COURT: If you must.

15 We're on the record, folks.

16 MR. FLOOD: There's an interesting  
17 piece of language in there talking about averages and  
18 absorption rates. And it says absorption and  
19 burn-off rates are highly variable in each  
20 individual. The, generally, accepted burn-off rate  
21 is about one beer per hour -- and it quotes, "average  
22 man." And Mata states, "However, the 'average man,'  
23 like, the average family with 2.4 children  
24 doesn't" --

25 THE COURT: Are you pointing out "one

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1 little thing," or giving an argument? Because it  
2 sounds, suspiciously, like an argument. So, I'm to  
3 ask you to hold onto that.  
4 MR. FLOOD: Okay.  
5 THE COURT: And I don't want  
6 conversation in this courtroom right now. I want  
7 them reading this case so they can answer my  
8 question.  
9 MR. FLOOD: Yes, ma'am.  
10 (Brief pause)  
11 THE COURT: Have you had a sufficient  
12 opportunity of time to read this now?  
13 MS. WILLIAMS: Yes, Your Honor. And  
14 before I discuss it -- quickly clarifying your  
15 concern so I can make sure that I understood it.  
16 Your concern was: Regarding the Mata facts, and  
17 whether or not the expert should be allowed to make  
18 estimations as to those factors?  
19 THE COURT: Correct.  
20 MS. WILLIAMS: I understand.  
21 In regards to the weight and height,  
22 right now we wouldn't be able to give that in terms  
23 of trial unless the deputies were given the  
24 opportunity to come back. In terms of this hearing,  
25 in the hopes that they will get time to get back --

1 THE COURT: Why don't you ask the  
2 expert about those Mata factors, and whether she  
3 agrees if they're important.  
4 MS. WILLIAMS: Yes, Your Honor.  
5 Q. (BY MS. WILLIAMS) Let's discuss some of the  
6 factors and variables that are necessary to make a  
7 determination of whether you can extrapolation.  
8 Let's discuss the length of time and the time of the  
9 offense, is that something you find important?  
10 A. Yes.  
11 Q. Okay. And why?  
12 A. The incident time and the time of the blood  
13 draw, we're talking about?  
14 Q. Yes, ma'am.  
15 A. So that is what's -- both are important for  
16 the calculation to work. Because you have a certain  
17 amount of alcohol at a certain amount of time, that's  
18 what the software uses to back extrapolate to the  
19 incident time, using also the first drink and the  
20 last drink; and it just makes a curve of those values  
21 and to see where that would be, whether that person  
22 was absorbing, would be absorbing, or eliminating.  
23 So, it will calculate that. So, it's very important  
24 for those points to be made. Otherwise, it will not  
25 work.



1 Q. Okay. As far as this extrapolation, were  
2 you given that information?

3 A. Yes.

4 Q. And let's discuss some other individual  
5 characteristics. Is it important to know the  
6 subject's weight?

7 A. Yes.

8 Q. And why?

9 A. Because the formula uses the weight in the  
10 distribution factor to see how the dose will be  
11 distributed at a given time. So, you have to have  
12 the weight plugged there, without the weight  
13 information the formula would not work.

14 Q. Without the weight information, why  
15 wouldn't the formula work?

16 A. Because of -- depending on -- alcohol  
17 distributes throughout your body depending on your  
18 weight and the amount water and the fat quality. A  
19 person who is drinking one drink and is a very small  
20 person, the alcohol is going to be distributed in a  
21 very small area. So, the concentration would be  
22 higher as compared to the person who drink one drink  
23 and then the alcohol is distributed all over that  
24 area, and the concentration would be small.

25 So, it would not be fair to assume a

1 small person and a large person would have the same  
2 concentration at the given time. So, the formula has  
3 to have that weight to determine at one time, that  
4 the alcohol concentration would be, that depends on  
5 the weight.

6 Q. Okay. And what about how much somebody has  
7 eaten, is that considered an important factor?

8 A. It is an important factor, in a sense. If  
9 you eat food, and it is actually absorbed -- and it  
10 is the type of food that you eat, can slow the  
11 absorption. Like, it's not the same as drinking  
12 alcohol on an empty stomach.

13 Like, if you eat steak, for instance,  
14 it's very proteinous. It's very areawide; it sits  
15 there in your stomach. So, the alcohol with that  
16 steak is not going to be moving into the intestines,  
17 as fast as the empty stomach with only the alcohol,  
18 that moves faster into the intestines.

19 So, that's what the difference is.  
20 Because it has to compete for absorption, you know,  
21 site. That's why it's a smaller moving -- or  
22 emptying. Your bowel empties that slowly, because it  
23 has to digest that meat; and at the same time, the  
24 alcohol is still in there. So, that's why it slows  
25 the absorption. So, at a given time, if a person

1 drinks a drink, one drink, without food it will go,  
2 probably, 30 minutes.

3 Within 30 minutes, that alcohol would  
4 be absorbed. But if a person just had steak before  
5 he drinks, it may take an hour or an hour and a half  
6 for that alcohol to be absorbed into the system. So,  
7 it's very important to have that fact.

8 THE COURT: Let me ask a question:  
9 So, if you don't know when someone ate food and what  
10 they ate at that time, it affects your ability to  
11 accurately extrapolate?

12 THE WITNESS: If you know exactly, the  
13 software allows you to put that information. If you  
14 know exactly what time, you can put that information.

15 THE COURT: No, that's what I'm  
16 telling you: If you don't know those things.

17 THE WITNESS: If you don't know the  
18 time or the steak, then, you just have to use the  
19 average.

20 Q. (BY MS. WILLIAMS) And by average, you're  
21 referring to the constant we see at the bottom?

22 A. Yes.

23 Q. That slow absorption rate and that fast  
24 absorption rate?

25 A. Yes. This is the slow absorption rate.

1 This is the factor that the computer will use. And  
2 fast absorption rate, this will be at 6.5. But this  
3 is -- you can put one, up to eight in here  
4 (indicating) for -- if you have some information, and  
5 you know for sure the person ate a steak before the  
6 alcohol -- or while he's drinking, you can put one  
7 here (indicating) and one here (indicating), and  
8 calculate the whole thing with a slow absorption.  
9 And -- or you can choose, depending on the  
10 information you have.

11 Q. Okay. And so to clarify, that means you do  
12 need to know that they ate?

13 A. Yes.

14 Q. But do you need to know, necessarily, need  
15 to know the exact time to use your calculation?

16 A. Not really. It's during the course of, you  
17 know, your drink you can either have it at the  
18 beginning or at the middle. It will not have that  
19 much of a significance, as long as they're eating,  
20 you know, the absorption is going to be slow.

21 Q. Okay. Can you just briefly explain why not  
22 knowing the time isn't that significant in terms of  
23 making that determination?

24 A. Because you may have, like, for instance,  
25 you drink -- you go out to the bar, and you start

1 drinking a couple of drinks, and then you start  
2 eating; you may have absorbed that much faster on an  
3 empty stomach. And then, you eat, and then you start  
4 drinking; and then, it's going to be slower. It will  
5 not have that much of a really, really a significant  
6 effect on the total, when you look at it, in general,  
7 the course of the time. For that particular time,  
8 yes, but when we're looking at the general area under  
9 the curve, it doesn't have that much of a  
10 significance. But if you know and you calculate it  
11 with slow absorption, you know you're giving the  
12 benefit of the doubt to the defendant.

13 Q. Okay. And in this particular case, were  
14 you given facts concerning whether the hypothetical  
15 individual had eaten or not?

16 A. Had eaten?

17 Q. Yes.

18 A. Yes.

19 Q. And so, let's discuss the importance of  
20 knowing the first drink. Is that something that's  
21 considered important in regards to extrapolation?

22 A. Yes.

23 Q. And what about knowing when the last drink  
24 was?

25 A. Yes, both are important. Because you can

1 construct this curve; that makes it more accurate.  
2 Yes, you can do extrapolation without that  
3 information, but it would be less accurate.

4 Q. Okay.

5 A. But we have here, the start time and the  
6 stop time and every information, so that would make  
7 it accurate.

8 Q. And how would that time interval make it  
9 more accurate?

10 A. Because from the total time -- because you  
11 have the end time here, what the concentration is,  
12 and the software can calculate how many drinks that  
13 that person should have drank to get to that level.  
14 This is the established fact through  
15 pharmacokinetics.

16 So, once it calculates, it will give  
17 you each time. If you look at this first, through  
18 all numbers, the time in 24 hours, it will give you  
19 at 18:00 there was zero alcohol; 18:20 there was .13  
20 alcohol. It gives you all the numbers at each hour,  
21 and then you can tell, you know, at what time.

22 THE COURT: Can I look at your copy?

23 THE WITNESS: Yes.

24 THE COURT: Thank you.

25 A. So, this is why it's important; it makes it



1 more accurate.

2 Q. (BY MS. WILLIAMS) Okay. And so -- and  
3 correct me if I'm wrong. Through the different  
4 formulae that's listed at the top, is it the same  
5 equation -- and we're trying to determine the  
6 constant that gets applied into that equation; is  
7 that a correct understanding?

8 A. Yes, it's the same formula. The difference  
9 is listed here on the volume of distribution. It's  
10 the same formula; the volume of distribution is going  
11 to be different for each. And then, all of them  
12 would have -- because the volume of distribution is  
13 different, all of them would have a different -- at a  
14 given time, the concentration may be a little  
15 different, a little bit, between all these six  
16 formulas by each time. So -- but it's the same known  
17 Widmark original formula that all these six formulas  
18 are built into.

19 Q. And to address the types of drinks -- or  
20 how -- is it important for extrapolation to know how  
21 many drinks this individual may have had?

22 A. Yes, it will calculate it. So, yes, it is.

23 Q. Okay. And why is that?

24 A. Because it's -- the formula is actually  
25 established based on what a standard drink is. One

1 standard drink is .6-ounce of pure alcohol. That is,  
2 one beer is considered one standard drink, which is  
3 5 percent alcohol. Or one glass of wine, which is 5  
4 ounces of wine is considered one standard drink.  
5 And, you know, one and a half shot, which is hard  
6 liquor, is considered one standard drink.

7 So, however, the concentration of  
8 alcohol -- how much of the concentration of alcohol  
9 it finds in your system, it came from there. So, it  
10 will back calculate it. How many drinks that person  
11 would have had, or how much of the total grams of  
12 alcohol that person would have had to get to this  
13 level of alcohol at this time is derived from this  
14 formula.

15 Q. So, have we -- are there any variables that  
16 you need in this hypothetical for extrapolation that  
17 you didn't receive in order to make an accurate  
18 estimation?

19 A. I have everything from this case.

20 Q. Okay. So, you have all the necessary  
21 information to make an educated --

22 A. Yes.

23 Q. Okay. And so, based on that, this is --  
24 would this estimation be accepted in the scientific  
25 community?

1       A.     These are all peer reviewed and published  
2     formulas. And -- everything here is published, and  
3     peer reviewed, so that means that's accepted by the  
4     scientific community.

5             MS. WILLIAMS: State passes the  
6     witness, Your Honor.

7             THE COURT: Mr. Flood, you may cross.  
8     Try to remember that the jury has been waiting for 35  
9     minutes again.

10            MR. FLOOD: Okay.

**CROSS-EXAMINATION**

12     BY MR. FLOOD:

13       Q.     So, you need to know -- I noticed on your  
14     chart that you presented, you estimated a 27-minute  
15     absorption time, correct?

16       A.     Yeah. Based on the area under the curve,  
17     you have to give it -- after the incident, it was  
18     additional 27 minutes that the person was absorbing.

19       Q.     Right. So, it's common knowledge, and you  
20     testified that a person can still be absorbing,  
21     meaning rising, from 30 minutes, up to two hours and  
22     even beyond two hours, right?

23       A.     If you stopped drinking at that incident  
24     time. Like, if he just stopped drinking at the  
25     incident time which 1:41, right? The incident time

1     is 1:41, where we go back and extrapolate to; and  
2     then you can give it two hours just for absorption,  
3     after that.

4       Q.     Right. So, the time of the last drink that  
5     you used here was 12:00 o'clock?

6       A.     Yes, that's what is given to me.

7       Q.     And then, you said that he would have  
8     stopped absorbing at 12:27?

9       A.     Yes.

10       Q.     That's what this is, military time, right  
11     here (indicating)?

12       A.     Yes.

13       Q.     Okay. So, you're only allowing 27 minutes  
14     for him to absorb, correct?

15       A.     I didn't --

16       Q.     The program did.

17       A.     -- the computer allowed it to go that way.  
18     Because depending on how much drinking -- he  
19     started -- based on the start time, like, he started  
20     at 6:00 o'clock, right, 6:00 p.m.? And then, he  
21     stopped at 12:00. So, what -- when the computer  
22     plugs in, and then, the concentration of the blood,  
23     you know, the blood value, it would calculate how  
24     many drinks that would be. And it gives it the same  
25     rate for all those hours. That means the person

1 should have been absorbing for about 27 minutes for  
2 all the drinks that he was drinking. That's why it  
3 was going only 27 minutes, based on the area under  
4 the curve.

5 Q. So, you're making a lot of assumption to  
6 plug this number into this computer program, right?

7 A. This is partly the facts that I'm given. I  
8 just put it in there, it just plugged it into the  
9 formula, and the formula gives that out.

10 Q. Like, you need to have the weight you put  
11 in?

12 A. Yeah.

13 Q. And you didn't do this calculation on your  
14 on, you put it into this BAC-Tracker?

15 A. Yes.

16 Q. And you let it calculate it?

17 A. Yes.

18 Q. And you put in the height that was given to  
19 you by the State?

20 A. Yes.

21 Q. Time of last drink?

22 A. Yes.

23 Q. And so you're -- and you're assuming that  
24 there was, like an even, perfectly  
25 spread-out-drinking pattern over the six hours of the

1 time period the State gave you, right?

2 A. Yes.

3 Q. But you don't know that, personally, to be  
4 true, right?

5 A. No.

6 Q. Do you know the alcohol concentration of  
7 the beverages?

8 A. No.

9 Q. And that's an important factor, that from  
10 all the peer-reviewed literature, that's something to  
11 take into consideration when doing extrapolation,  
12 right?

13 A. No, what you need to know is what's in the  
14 system. How much alcohol was in that person's  
15 system.

16 Q. Right.

17 A. It doesn't matter how many drinks. It will  
18 calculate it automatically for you. But what you  
19 need to know is how much it was at one time, and when  
20 does that person start drinking, and it would  
21 automatically draw it to you.

22 Q. Exactly. So, if there's a drink with  
23 higher alcohol -- you said you need to know how much  
24 alcohol is their system?

25 A. We know how much alcohol is in his system,

1 that's what the starting point is, we know that.  
2 Q. Okay. Well, the information you were given  
3 was three drinks over six hours?  
4 A. The number of drinks really, really doesn't  
5 matter.  
6 Q. Okay. It doesn't when you're trying to  
7 figure out the drinking pattern to do extrapolation,  
8 right? If a person drank more towards the end, that  
9 would affect their absorption rate, correct?  
10 A. Correct.  
11 Q. Okay. And you don't know that factor,  
12 you're assuming an average absorption rate, right?  
13 A. Yes.  
14 Q. Okay. And even though a person can be  
15 absorbing for up to two hours here -- so, you can do  
16 an extrapolation, provided the person is in the  
17 elimination phase, correct?  
18 A. Yes.  
19 Q. Okay. Here you don't know about what he  
20 ate, right?  
21 A. No.  
22 Q. Okay. So, with 27 minutes allowed for  
23 absorption, that's assuming he was drinking on an  
24 empty stomach, did you factor that in?  
25 A. What -- the factor that I use is average.

1 Q. Okay. So here's the averages down here at  
2 the bottom.  
3 A. Yes.  
4 Q. This is different absorption rates?  
5 A. Yes.  
6 Q. Right?  
7 A. Yes.  
8 Q. Slow would be a 2.5 -- and this isn't,  
9 like, hours or anything, right?  
10 A. No, it's the half-life -- would come with  
11 the first order of absorption. The half life would  
12 be the alcohol absorption.  
13 Q. This one (indicating) would be 6.5, right?  
14 A. Yes.  
15 Q. Okay. But you don't know what his  
16 absorption rate was, correct?  
17 A. No, just -- the computer assumes the  
18 average.  
19 Q. Okay. I'm going to try to ask just  
20 yes-or-no questions, so I can conclude the hearing  
21 faster --  
22 THE COURT: Thank you.  
23 Q. (BY MR. FLOOD) -- if that's okay with you?  
24 A. Sure.  
25 Q. Did you know what his absorption rate was

1 to plug into the computer program?

2 A. No.

3 Q. All right. So, you used an average

4 absorption rate, correct?

5 A. Yes.

6 Q. Okay. If you used a slow absorption rate,

7 then this number would be different, correct?

8 A. Could be, yeah.

9 Q. And it could be up to two hours, correct?

10 A. It's my experience that two hours -- I

11 haven't seen, even with the slowest absorption, the

12 maximum I saw is one and a half hours.

13 Q. Okay. You've given me peer-review

14 articles. You have Garrote [phonetic] here, which I

15 know you're familiar with.

16 A. Yes.

17 Q. It's a treatise on -- do you want me to

18 show you all the literature that talks about how a

19 person can be absorbing for two hours or more?

20 A. No, no, no, I know about that.

21 Q. So you're --

22 A. I know the literature says that, but

23 this --

24 Q. I'm not asking what you have seen. I'm

25 asking what the scientific community agrees to.

1 A. Correct. You're correct.

2 Q. A person can be absorbing for up to two

3 hours or more, right?

4 A. Yes.

5 Q. And that depends on certain variables that

6 you don't know in this situation, right?

7 A. Yes, correct.

8 Q. But in this case, if he was absorbing for

9 two hours, then this number right here (indicating)

10 would be different, correct?

11 A. The peak time, yeah, would be different,

12 yes.

13 Q. If you used midnight as the time of the

14 last drink, then this would be 2:00 o'clock?

15 A. 2:00 o'clock, yes.

16 Q. Okay. And the time of interest, which you

17 say right here (indicating) is 1:41?

18 A. Yes.

19 Q. So, he would still be absorbing. If you

20 knew those variables, instead of guessing an average,

21 if you knew that, this -- he could still be in the

22 absorption phase at the interest time, right?

23 A. Could be.

24 Q. And so -- but you had to put in variables

25 into that program that are assumptions, correct?



1       A.     Correct.

2       Q.     Correct. Now, I don't know if you read

3       that Mata case, but I know you're familiar with the

4       variables needed to do a proper extrapolation,

5       correct?

6       A.     The one that I just used.

7       Q.     Okay. Are you also familiar with the

8       strong warnings and cautions about trying to predict

9       a BAC when the person is still in the absorption

10      phase? Do you know the difficulties associated with

11      that?

12      A.     Yeah, it could be variable, we know that.

13      It could be variable.

14      Q.     In fact, all of the peer-review literature

15      puts extreme caution on even attempting to

16      extrapolate, when a person is in the absorption

17      phase, right?

18      A.     Yes, it could be variable. I agree.

19      Q.     So, you said to me, that you can calculate

20      the Widmark formula if you know the person is already

21      eliminating, right?

22      A.     Yes.

23      Q.     Okay. And that's based on this 27-minute

24      absorption phase?

25      A.     Yes.

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1       Q.     Which is even lower than 30 minutes, which

2       is commonly referred to as the fastest a person could

3       absorb, right?

4       A.     Fastest is 15 minutes, actually.

5       Q.     And that's based on some average between

6       those two numbers here (indicating) that we're just

7       guessing at, right?

8       A.     Yes.

9       Q.     So, the person -- if Mr. Imrecke was, in

10      fact, still in the absorption phase -- going up --

11      you can't calculate that, can you, manually? You

12      would have to use that BAC-Tracker to calculate that,

13      right?

14      A.     I would say because it has the logarithms

15      of this number and that number at specific times, so

16      it would be really long for me to calculate that,

17      where you have a calculator right there.

18      Q.     And I asked you about this. You would have

19      to use this BAC calculator to figure that for you,

20      right?

21      A.     If I know the person is absorbing, yes, I

22      will let the BAC-Tracker calculate it for me, instead

23      of me trying to calculate it.

24      Q.     And generally, it's not common practice for

25      any lab professionals or colleagues to attempt to

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1 extrapolate back into the absorption phase, right?

2 A. Correct.

3 Q. Okay. It's fraught with difficulties, and

4 you're well aware of that, right?

5 A. It's just -- only because you cannot do the

6 uncertainty and all those assumptions -- variable

7 assumptions that, you know, we cannot just go and

8 just calculate it.

9 Q. Okay.

10 A. It needs to go through some logarithmic

11 calculations, you know, additionally, with absorption

12 constant. See, for the elimination, because there is

13 a constant rate, it's very easy to calculate that.

14 But while the person is absorbing, this exponential

15 and logarithmic calculations, so -- which -- so, you

16 need a calculator for that instead of you trying to

17 figure it out.

18 Q. Okay. And you said you would need the

19 computer program to figure it out?

20 A. Yes.

21 Q. So, just to summarize, the assumptions

22 you're making are his height and his weight?

23 A. Those are not assumptions those are facts.

24 Q. Okay. You need to know information about

25 when he ate to determine his absorption rate?

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1 A. Yes.

2 Q. And we don't have that here. So, you're

3 assuming an absorption?

4 A. Yes.

5 Q. And did you manually pick that and, say,

6 let's just assume this for this calculation?

7 A. No. I just plug the lowest in and highest

8 in, and the computer will do the average.

9 Q. The average?

10 A. Yes.

11 Q. Not based on facts that we know, just

12 computer average?

13 A. Yes.

14 Q. And those are the important factors to be

15 able to give an accurate BAC if the person is in the

16 elimination phase?

17 A. Yes.

18 Q. It becomes much more difficult, during the

19 absorption phase, right?

20 A. It just increases the range; that's all it

21 does really.

22 Q. The rate of error, right?

23 A. Yeah. But the rate of error increases, and

24 then your range is going to be increased.

25 Q. And so, you said you give the benefit of

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1 the doubt to the -- you said "defendant"; I'll call  
2 him Mr. Imrecke -- by reporting the lowest BAC from  
3 the analysis, right?

4 A. Yes.

5 Q. Okay. Well, you gave this wide range of  
6 BACs here, right?

7 A. Yes.

8 Q. From here to here (indicating on State's  
9 Exhibit A)?

10 A. Uh-huh.

11 Q. And you reported it to be based on the  
12 assumptions .152?

13 A. Yes.

14 Q. Well, this isn't giving him the benefit of  
15 the doubt, is it? Because if you look at the lowest  
16 one -- and this isn't in color -- but I think we  
17 determined that this bottom one is the Seidl?

18 A. Yes.

19 Q. That is well below .152, and that's not  
20 giving him the benefit of the doubt. You're  
21 averaging all of these formulas, aren't you?

22 A. Yes.

23 Q. Okay. Do you know how to calculate the  
24 Watson formula by hand?

25 A. The Watson formula?

1 Q. Right here (indicating).

2 A. Yeah. I mean, like I said, the differences  
3 of the -- there are factors that's given over there.

4 Q. And the Seidl formula, you can write these  
5 out by hand --

6 A. Yeah.

7 Q. -- and calculate them without the  
8 BAC-Tracker?

9 A. Well, really the formula is already out  
10 there. I mean --

11 Q. I'm asking if you can do this and explain  
12 how these formulas work: Ulrich, Forrest, not  
13 Widmark, Seidl, Watson, and then one was developed by  
14 Dr. Mozayani?

15 A. Yeah. She just averaged them; that's all.

16 Q. Okay. You didn't do this calculation; it  
17 was just put into the software that y'all purchased?

18 A. Yeah.

19 Q. Just plug in the numbers and then you let  
20 it generate this report and that's what you rely on?

21 A. Yeah.

22 Q. Okay.

23 MR. FLOOD: I'll pass the witness.

24 MS. WILLIAMS: Brief redirect, Your  
25 Honor, if I may?

1 THE COURT: I have a question. And I  
2 want y'all to address my question after I ask it.

3 If we were to assume the slowest  
4 absorption rate, then what would the extrapolation be  
5 for the time of stop at 1:41? Using all your other  
6 factors.

7 THE WITNESS: Yeah. It would be a  
8 little bit smaller, but I don't know.

9 THE COURT: But you can't tell us  
10 what?

11 THE WITNESS: I can't tell you. I'd  
12 have to have the BAC-Tracker to change that number on  
13 the bottom. Can you pull that one up?

14 THE COURT: Could you do any of those  
15 off the top of your head with a calculator without  
16 the BAC-Tracker?

17 THE WITNESS: With the absorption rate  
18 constant, no, I can't. But -- only elimination I  
19 can.

20 THE COURT: So you're telling me, if  
21 he was in absorption still, when he was stopped, you  
22 can't extrapolate?

23 THE WITNESS: Manually, no, I cannot  
24 extrapolate.

25 THE COURT: But you're saying this

1 thing can do it?

2 THE WITNESS: Yes.

3 THE COURT: Because it assumes  
4 something?

5 THE WITNESS: Yes.

6 THE COURT: Questions?

7 MS. WILLIAMS: Questions of your  
8 question, or redirect?

9 THE COURT: Either one.

10 MS. WILLIAMS: Your Honor, I do have  
11 some questions.

12 THE COURT: Well, let's make it  
13 snappy.

14 MS. WILLIAMS: Okay.

15 **REDIRECT EXAMINATION**

16 **BY MS. WILLIAMS:**

17 Q. I would just like to clarify a few things  
18 with you, if you don't mind, Dr. Guale. This number  
19 right here, this 27 minutes --

20 A. Yes.

21 Q. -- you originally testified that that would  
22 be after the time of the incident; is that correct?

23 A. It would be 27 minutes after the stop of  
24 the drink.

25 Q. All right. And so, in this case, the

1 report says that the time of the stop was 1:41 --  
2 A. Yes.  
3 Q. -- is that correct?  
4 A. Yes.  
5 Q. And so, originally, defense presented it as  
6 midnight; is that correct?  
7 A. Midnight is the time where the person  
8 stopped drinking.  
9 Q. Okay.  
10 A. Yeah.  
11 Q. And so, the time of the last drink --  
12 A. Yes.  
13 Q. -- and just so we can clarify, was  
14 midnight?  
15 A. Yes.  
16 Q. The time of the stop was 1:41?  
17 A. Yes.  
18 Q. And your paperwork is actually saying he  
19 came out of absorption 27 minutes after that stop --  
20 A. Yes.  
21 Q. -- is that correct?  
22 A. And so --  
23 THE COURT: Meaning, 2:08 then? 2:08  
24 a.m., did I do that right?  
25 THE WITNESS: No, before the incident.

1 THE COURT: Okay. We're all saying  
2 different stuff. He thinks you mean 12:27 a.m. is  
3 when --  
4 THE WITNESS: It peaked -- he peaked.  
5 MR. FLOOD: Right.  
6 THE COURT: 12:27?  
7 THE WITNESS: Yes, he stops absorbing.  
8 THE COURT: Before the stop?  
9 THE WITNESS: Yes, before the  
10 incident, yes. I like to call it "time of interest,"  
11 1:41, yeah.  
12 THE COURT: But they think you mean 27  
13 minutes after the stop if I'm understanding  
14 correctly. Which is it?  
15 THE WITNESS: No, that's 27 minutes  
16 after the last drink, which is 12:00 o'clock.  
17 THE COURT: Okay. So, 12:27 a.m.  
18 is --  
19 THE WITNESS: The stop.  
20 THE COURT: -- the end of  
21 absorption --  
22 THE WITNESS: Yes.  
23 THE COURT: -- according to this?  
24 THE WITNESS: Yes.  
25 THE COURT: That isn't what you were

1 just saying, I think.

2 MS. WILLIAMS: No, Your Honor, I was  
3 attempting to clarify. I think we're getting there.

4 Q. (BY MS. WILLIAMS) Okay. So, that  
5 absorption rate, that 27 minutes --

6 A. Yes.

7 Q. -- I guess. The questions we have -- where  
8 all parties seem to have -- is that 27 minutes after  
9 he stopped drinking at midnight, or after he was  
10 stopped at 1:41 in the morning, an hour and 41  
11 minutes after his last drink?

12 A. After he stopped drinking at 12:00 o'clock,  
13 12:27 he stopped absorbing. At the time of the  
14 incident, which 1:41, he was eliminating according to  
15 this.

16 Q. Okay. And so, would it be possible, if you  
17 wanted, for the benefit of this subject, if you  
18 wanted to, could you calculate using the slow  
19 absorption rate, and then calculate also using the  
20 fast calculation rate?

21 A. Individually? Yes, I can do that with the  
22 software.

23 Q. So, if we were to say we wanted to do this  
24 at the benefit of the defendant -- I'm sorry, at the  
25 subject, and do it at the slowest absorption rate,

1 you can do that with your program?

2 A. Yes.

3 Q. And speaking of BAC-Tracker, is BAC-Tracker  
4 a program -- in terms of extrapolation, is that  
5 something that's accepted within the scientific  
6 community?

7 A. Yes.

8 Q. And how do you know? How do you know  
9 that's accepted within the scientific community?

10 A. It's published.

11 Q. There's information published on  
12 BAC-Tracker?

13 A. Yes. There's a manual for it. And then,  
14 there's also publications in there, and I gave it to  
15 the defense counsel.

16 Q. Do you think that that might be something  
17 that could assist the Court in better understanding  
18 the program?

19 A. Yes. There's a manual for each thing,  
20 which the software assumes and doesn't assume. It's  
21 listed in there, in the manual.

22 MS. WILLIAMS: Your Honor, may I  
23 approach the witness?

24 THE COURT: Yes, but it's really not  
25 going to help me.

1           MS. WILLIAMS: You'll find that it's  
2 not helpful --

3           THE COURT: This software isn't  
4 helping me on her personal understanding of the  
5 equations of the formula, and not just plugging  
6 something into a computer. Because it seems like  
7 you, or I could data entry -- or enter that data  
8 ourselves without understanding a darn thing. And  
9 what we have to prove under Mata and the other cases,  
10 before this goes to the jury, is that she can  
11 calculate it without that; that she can explain it.  
12 And so, that's why that's not helpful to me.

13           MS. WILLIAMS: Yes, Your Honor.

14           THE COURT: And so, the answer we are  
15 consistently getting, at this point, is that she  
16 could do it with her software. I'm not hearing the  
17 other.

18           So, what we're going to do now is  
19 we're going to recess this hearing, and we're going  
20 to go into testimony with the jury. And then, we'll  
21 have a hearing over lunch. We'll finish this hearing  
22 over lunch and decide whether she'll be testifying to  
23 the jury after lunch. We have left them for almost  
24 an hour, again, in the jury room. And I just find  
25 that unconscionable.

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1           All right. So, that was my mistake in  
2 thinking we could do this, and I will own up to the  
3 jury.

4           Take a quick break, and then we're  
5 going to be starting with the jury.

6           (Recess taken)

7           THE BAILIFF: Please rise for the  
8 jury. Everybody stand up.

9           (Jury enters the courtroom)

10           THE COURT: You may be seated. Let  
11 the record reflect that the parties and jurors are  
12 present and seated in the courtroom.

13           Folks, it's on me. I've been trying  
14 to finish the hearing that we were doing, and it took  
15 a lot longer than I thought. So, again, I apologize  
16 for keeping you in the jury room, but now we're ready  
17 to proceed with testimony.

18           Call your next witness.

19           MS. WILLIAMS: State calls Kimberly  
20 Peterson.

21           THE COURT: Thank you.

22           THE BAILIFF: Your Honor, this witness  
23 has not been sworn.

24           THE COURT: Would you please raise  
25 your right hand?

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1 (Witness sworn)  
2 THE COURT: All right. Come on up.  
3 (Witness complies)  
4 THE COURT: Thank you.  
5 You may proceed.  
6 MS. WILLIAMS: Thank you, Your Honor.  
7 **KIMBERLY PETERSON,**  
8 having been first duly sworn, testified as follows:  
9 **DIRECT EXAMINATION**  
10 BY MS. WILLIAMS:  
11 Q. Will you please introduce yourself to the  
12 jury?  
13 A. My name is Kimberly Peterson. That's  
14 P-E-T-E-R-S-O-N.  
15 Q. What is your occupation?  
16 A. I'm a Toxicologist III at the Harris County  
17 Institute of Forensic Sciences.  
18 Q. And what is a toxicologist?  
19 A. A toxicologist performs scientific tests on  
20 body fluids and tissue samples in order to determine  
21 if there's any drugs or chemicals present in the  
22 body.  
23 Q. And how long have you been so employed?  
24 A. I've been employed at Harris County for  
25 about a year and a half.

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1 Q. And have you always held this position?  
2 A. Yes.  
3 Q. And so, can you explain what some of the  
4 duties are of the current position?  
5 A. Yes. My primary duty is to analyze the  
6 tissue samples and blood for the presence of ethanol  
7 or the other volatiles.  
8 Q. Okay. And you mentioned you work for the  
9 Harris County Institute of Forensic Sciences, what  
10 accreditations does that laboratory hold?  
11 A. We have three accreditations. The first  
12 one is the American Board of Forensic Toxicology or  
13 ABFT. Another one is the American Society of Crime  
14 Laboratory Directors Laboratory Accreditation Board  
15 International or ASCLAD/LAB for short. And the third  
16 is the Texas Forensic Science Commission.  
17 Q. Now, there -- out of one of those  
18 accreditations that you mentioned, one of them is  
19 very important. Which one and why is it so  
20 significant?  
21 A. Well, all of the accreditations are  
22 important. We -- the entire lab is accredited on a  
23 national level, a state level, as well as, an  
24 international level. And each of these  
25 accreditations requires that we follow strict

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1 standards in order to obtain the accreditations from  
2 that body, as well as, undergo regular inspections to  
3 maintain that accreditation.

4 Q. All right. So now can you discuss with us  
5 your educational background?

6 A. Yes. I graduated in 2012 with a Master's  
7 of Science in Forensic Science from California State  
8 University Fresno. And I also, have bachelors'  
9 degrees in both biology and anthropology, which I  
10 received from Central Washington University in 2008.

11 Q. All right. And what specific training have  
12 you received in the area of ethanol analysis?

13 A. Since, I've been employed at Harris County  
14 I was required to undergo an alcohol training  
15 program, and that included performing competency  
16 tests, as well as, passing a written examination.  
17 Once I completed that, I was considered sign-off and  
18 able to participate in proficiency examinations,  
19 which are where a third party assigns testing and  
20 will review or grade my results.

21 Q. All right. And do you have any  
22 certifications relevant to this area?

23 A. Yes. I am certified by the American Board  
24 of Forensic Toxicology, which is one of the  
25 accrediting bodies I mentioned earlier as a

1 diplomate.

2 Q. All right. And have you testified as an  
3 expert witness in the area of forensic toxicology  
4 before?

5 A. Yes.

6 Q. And has that been on few or many occasions?

7 A. Few.

8 Q. And does that include expert testimony in  
9 the courts of this county?

10 A. Yes.

11 Q. And so -- just so we can know, about how  
12 many blood DWI trials have you testified in so far?

13 A. I believe this is my seventh time  
14 testifying.

15 Q. Okay. Now, can you explain to the ladies  
16 and gentlemen of the jury, the science behind  
17 blood-alcohol testing?

18 A. Yes. So, for blood-alcohol testing at  
19 Harris County, we use a method, which is an  
20 instrument called the -- I'm sorry, the method is  
21 called headspace gas chromatography.

22 MS. WILLIAMS: Your Honor, may I  
23 approach the witness?

24 THE COURT: Yes.

25 Q. (BY MS. WILLIAMS) I have what's marked for



1 demonstrative purposes, State's Exhibit No. 19, do  
2 you recognize this?

3 A. Yes.

4 Q. And do you believe it would aid the jury in  
5 understanding gas chromatography and how it works --

6 MR. FLOOD: Judge, to save time, I'll  
7 stipulate to the predicate and admissible, if that's  
8 okay.

9 MS. WILLIAMS: Okay. At this time,  
10 State moves to introduce what's previously been  
11 marked as State's Exhibit No. 19 into evidence.

12 MR. FLOOD: No, objection.

13 THE COURT: State's 19 is admitted.

14 MR. FLOOD: I'm sorry, I thought they  
15 were offering it for demonstrative purposes, and  
16 that's what I agree to.

17 MS. WILLIAMS: We will use it for  
18 demonstrative purposes, Your Honor.

19 THE COURT: Thank you. That is how it  
20 is admitted, then.

21 MS. WILLIAMS: Your Honor, may I  
22 publish?

23 THE COURT: Yes, ma'am.

24 Q. (BY MS. WILLIAMS) Okay. Now, can you began  
25 to explain the science behind the blood testing in --

1 specifically, the gas chromatography?

2 A. So gas chromatography headspace is the  
3 method we use at our lab, and it's the most popular  
4 or commonly used method to determine ethanol or blood  
5 alcohol in forensic laboratories. It's very  
6 sensitive, as well as accurate, and it's, as I  
7 mentioned, a way to determine the amount of ethanol  
8 or alcohol in a sample.

9 Q. And has the science behind this been,  
10 generally, accepted in the field?

11 A. Yes.

12 Q. And has that technique been tested in  
13 actual field conditions?

14 A. Yes.

15 Q. And has that technique be subject to peer  
16 review and publication?

17 A. Yes.

18 Q. So, that technique has been accepted within  
19 the relevant scientific community?

20 A. Yes.

21 Q. And how do you know that?

22 A. It's considered the gold standard for  
23 testing blood alcohol or ethanol, and it's been  
24 published in hundreds of articles.

25 Q. All right. So, can you explain, in the

1 simplest manner, kind of, how this process works in  
2 terms of testing the ethanol in someone's blood?

3 A. Yes. So, we're able to determine the  
4 amount of ethanol in a blood or tissue sample because  
5 of Henry's Law in action.

6 And Henry's Law is just a scientific  
7 rule, essentially, that states that at a constant  
8 temperature in a closed system or container, there's  
9 a relationship between the amount of ethanol or  
10 alcohol in the actual blood, in comparison to the  
11 space above the actual blood, which is in the picture  
12 referred to as the headspace.

13 And so, that picture shows a vial that  
14 we actually would use to test a sample with that  
15 closed container; so, we're able to test the  
16 headspace and get the amount of alcohol present in  
17 the sample.

18 Q. And since we're looking at a PowerPoint --  
19 and you may have addressed this -- you mentioned  
20 headspace, what is headspace?

21 A. Headspace is just the space above the  
22 sample.

23 Q. Okay. And what happens -- okay. So, can  
24 you, kind of, tell us a little bit more about the  
25 process of analysis?

1 A. Yes. I actually have more detail in the  
2 future slide, as far as the actual testing. Once the  
3 sample is introduced on the instrument -- would you  
4 like me to explain that first, or explain the slide  
5 that's listed?

6 Q. You can explain that first.

7 A. Explain which one first, I'm sorry?

8 Q. The slide that's listed.

9 A. Okay. So, this slide, kind of, shows the  
10 beginning of our process. So prior to running any  
11 samples -- case samples on the instrument, which is  
12 shown up there, I will have to do what is referred to  
13 as instrument calibration.

14 And the calibration is -- just  
15 consists of six standards, which are from a third  
16 party, and they contain a known amount of alcohol in  
17 them. And so, what we're doing is we run them on the  
18 instrument; and we know that they must fall within a  
19 narrow range. So, by running those and knowing that  
20 the instrument is able to correctly determine the  
21 amount in those standards, we're, then, able to  
22 proceed with putting our case samples on the  
23 instrument.

24 Q. Okay. If you need to, you can just tell me  
25 when you would like to have the next slide.

1 A. Okay.

2 Q. Okay. So, how does your lab receive the

3 blood specimen that is to be tested?

4 A. So, an officer will bring the sample to our

5 laboratory and give it to one of our evidence

6 technicians; the evidence technicians will then take

7 the sample, which also comes with -- the sample is

8 sealed, and it also comes with paperwork and enter

9 that into our laboratory information system or

10 database. There labels -- there the system will

11 generate a unique identifier for that case, and then

12 it's brought to our toxicology department for

13 testing.

14 The toxicologist department -- one of

15 the evidence technicians, will then open up the

16 actual evidence, make sure that everything is

17 properly labeled, take pictures of the tubes, and

18 then actually place labels onto the tubes. And then

19 from there, they'll place them into a locked

20 refrigerator, where an analyst, such as myself, will

21 be able to access the refrigerator to perform the

22 testing.

23 Q. All right. And in regards to these blood

24 vials, does your lab have any special requirements

25 for the blood vials that are submitted?

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1 A. Yes. We would prefer two gray-topped

2 tubes. We also -- we require the correct paperwork

3 is received with the tubes and that the evidence

4 container is sealed.

5 Q. And how are blood vials tracked, once your

6 lab has taken custody?

7 A. So as I mentioned previously, our

8 toxicology technicians will label the tubes, and so

9 each of the tubes has a label specific to that case.

10 In addition to that, every analyst has

11 their -- has a barcode with a unique identifier only

12 known to that individual. And so, when I take a

13 sample into my custody, I will scan that sample, and

14 then enter my barcode, and it's tracked in our

15 information system.

16 MS. WILLIAMS: Your Honor, at this

17 time may I approach to --

18 THE COURT: Yes.

19 MS. WILLIAMS: Your Honor, may I

20 publish?

21 THE COURT: Yes.

22 Q. (BY MS. WILLIAMS) Looking at State's

23 Exhibit No. 15, do you see that barcode?

24 A. Yes.

25 Q. Okay. And from that barcode, are you able

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- 1 to identify this blood vial?
- 2 A. Yes.
- 3 Q. And what is that unique barcode?
- 4 A. The barcode is what the toxicology
- 5 technician has placed -- I'm sorry, the evidence
- 6 technician has placed with that case once it was
- 7 received by our laboratory.
- 8 Q. And what is the lab number associated with
- 9 this case?
- 10 A. It's IFS14-16245.
- 11 Q. And how many vials are associated with this
- 12 case?
- 13 A. Two.
- 14 Q. And did you analyze the blood contained in
- 15 this vial to determine its alcohol content?
- 16 A. Yes.
- 17 Q. And how does your lab ensure that all the
- 18 samples that are submitted for testing, are tested in
- 19 the exact same manner every time, every-single-time?
- 20 A. We follow a standard operating procedure.
- 21 Q. And we spoke of the instrument earlier, was
- 22 the instrument that you used to test this blood, was
- 23 it working properly?
- 24 A. Yes.
- 25 Q. And does that instrument require

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- 1 maintenance, I think, you addressed it on the
- 2 previous slide about calibration?
- 3 A. Yes. They're -- we are required to do a
- 4 date-of-use maintenance on the day that I plan to
- 5 run. We do preventive maintenance, and then
- 6 as-needed maintenance, as well as yearly maintenance.
- 7 Q. All right. And -- like I said, just let me
- 8 know if you need a new slide. Before testing the
- 9 samples, what is the first step in ensuring that the
- 10 instrument and standards are correct?
- 11 A. I believe that was what I, kind of,
- 12 explained previously. To make sure that the
- 13 instrument is working correctly, I'll run three
- 14 negative quality controls. Those just contain
- 15 negative blood; so, it doesn't have any alcohol in
- 16 it. As well as, an internal standard, which is just
- 17 a compound that is structurally similar to alcohol.
- 18 So, it will behave on the instrument similarly to
- 19 alcohol.
- 20 So, we can be confident that if it's
- 21 in those samples -- if we added it to the sample and
- 22 it behaves on the instrument the way that we predict
- 23 it should, then we can use that as a ratio to
- 24 determine how much alcohol is present in the sample.
- 25 Q. And you mentioned standards, where do the

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1 standards come from?

2 A. Our standards come from a third party that  
3 is -- that has to be deemed acceptable by our  
4 accrediting bodies.

5 Q. And how does your lab ensure -- there's  
6 quality controls ensured with the results?

7 A. We have to have negative -- so between  
8 every ten samples, they must be bracketed by two  
9 quality controls, which are -- must fall within that  
10 same narrow range. The instrument must be able to  
11 detect those within a narrow range.

12 We also -- our testing process  
13 requires that we receive two tubes. So, we will  
14 screen on one tube, which just means we're  
15 determining if there is ethanol present. And then on  
16 the second tube, we will confirm to determine how  
17 much ethanol is actually present.

18 And on that confirmation test, we are  
19 required to put a negative quality control, which I  
20 mentioned earlier, that does not contain any ethanol.  
21 And so, that is just to ensure that the instrument is  
22 not -- is able to correctly determine the amount of  
23 ethanol in the sample, as well as, ensure that there  
24 is no carryover from one sample to the next.

25 Q. And how do these quality-control samples

1 affect the validity of the samples that come before  
2 and after that?

3 A. So the quality controls -- if we know that  
4 they must fall within a strict range, and they fall  
5 within that strict range, then we can be confident  
6 that the instrument is correctly able to determine  
7 the amount of ethanol in those results, which ensures  
8 that the instrument can correctly determine the  
9 amount of ethanol in our case samples.

10 Q. And what happens if the quality-control  
11 checks that are in place, do not function the way  
12 they are designed?

13 A. So, if the quality controls fall outside of  
14 the range, we must -- we must go back to the last  
15 acceptable quality control and reinject from that  
16 point. So, start the run over from that point. And  
17 we only have one opportunity to restart the run. If  
18 it's outside of the range again, we have to repeat  
19 those samples on a different day.

20 Q. All right. And so, will a sample that it  
21 tested before or after be reported as final if the  
22 quality-control checks don't check properly?

23 A. No. We will have to repeat that sample  
24 once the problem is rectified.

25 Q. Okay. And in this particular instance, did

1 you follow the protocol for testing the blood using  
2 that machine?

3 A. Yes.

4 Q. And -- now, referring back to State's  
5 Exhibit No. 15, were these the vials of blood taken  
6 from the defendant -- sorry.

7 Were these vials of blood taken from  
8 the defendant, were these the ones that you analyzed?

9 A. Yes.

10 Q. And you mentioned earlier that there's two  
11 vials, did you test both vials?

12 A. Yes.

13 Q. And what is the purpose of doing that?

14 A. So we test -- we designate one, the A Tube;  
15 and the second tube will be the B Tube. And, I  
16 think, I might have mentioned this, but the A Tube is  
17 used to screen, just to detect if ethanol is present.  
18 And the B Tube is to confirm and really determine how  
19 much ethanol is present.

20 Q. All right. And -- now, let's say that you  
21 tested both vials, and you have results for both  
22 vials, how close does that first run have to be to  
23 the second run to qualify as a valid test?

24 A. So, the values of both tubes must be within  
25 5 percent of one another for us to report the value.

1 Q. Okay. And why does it have to be within  
2 5 percent?

3 A. That's according to our standard operating  
4 procedures.

5 Q. Now, in this particular case, did you have  
6 two runs that were within 5 percent of each other?

7 A. I, actually -- I had to run this -- I had  
8 to perform the tests on the samples three times. And  
9 our standard operating procedures do allow me to run  
10 a total of three times if need be. And because I ran  
11 a screen on Tube A, and then I performed the  
12 confirmation on the B Tube, those two values were not  
13 within 5 percent. So, our standard operating  
14 procedures require that I take the lower -- the tube  
15 associated with the lower result and perform a test,  
16 a third test on that. And so, I did do that. And  
17 that result was within 5 percent of one of the other  
18 results, so I was able to report my result.

19 Q. Okay. So -- correct me if I'm wrong. Just  
20 to summarize, so you followed the lab's protocol,  
21 correct, did you follow the lab's protocol?

22 A. Yes.

23 Q. And you ultimately reran Tube A, is that an  
24 accurate understanding?

25 A. I believe it was Tube A -- may I refer to

1 my notes just to double-check?  
2 THE COURT: Yes.  
3 THE WITNESS: Thank you.  
4 A. Yes, that's correct.  
5 Q. (BY MS. WILLIAMS) And after rerunning Tube  
6 A, was it then -- was that third run within 5 percent  
7 of the second run?  
8 A. Yes.  
9 Q. And does your lab -- luh-bor-ra-to-ry or  
10 lab-ruh-tory policy or protocol, allow you to report  
11 the result at that time?  
12 A. Yes.  
13 Q. And with that, what did those results --  
14 what were you able to tell -- to determine from those  
15 results?  
16 A. I was able to determine that the sample did  
17 have ethanol present.  
18 Q. And what were you able to determine about  
19 the reliability of the test or the accuracy of your  
20 tests?  
21 A. Because I was able to get two tests within  
22 our narrow range of 5 percent, that lets me know that  
23 the test is accurate, sensitive, and also reliable,  
24 and repeatable.  
25 MS. WILLIAMS: Your Honor, may I

1 approach the witness?  
2 THE COURT: Yes, ma'am.  
3 MS. WILLIAMS: Thank you.  
4 Q. (BY MS. WILLIAMS) I'm showing you what's  
5 previously been marked as State's Exhibit 20. And do  
6 you recognize it?  
7 A. Yes.  
8 Q. And how are you able to recognize it?  
9 A. It has our Harris County Institute of  
10 Forensic Sciences' letterhead. The laboratory number  
11 is the same as this case. I, also, recognize my name  
12 as the analyst, as well as the technical and expert  
13 reviewers.  
14 Q. Okay. And is this a true and correct copy  
15 of the lab results stemming from the analysis of a  
16 Mr. Daniel Bryant Imrecke?  
17 A. Yes.  
18 Q. And has it been altered in any way?  
19 A. No.  
20 Q. And is this -- was this made at or near the  
21 time of the analysis that we were discussing?  
22 A. Yes.  
23 Q. And was it made in the ordinary course of  
24 business for your lab?  
25 A. Yes.



1 Q. And were you able to --

2 MS. WILLIAMS: Your Honor, at this  
3 time, I'd like to move to introduce what's been  
4 previously marked, as State's Exhibit 20 into  
5 evidence.

6 May the record reflect that I'm  
7 tendering to opposing counsel.

8 MR. FLOOD: I'm thinking -- I do have  
9 an objection. Is it okay if we approach?

10 THE COURT: Yes.

11 (Discussion at the Bench, on the  
12 record)

13 MR. FLOOD: Your Honor, I hate to do  
14 this again, but based on her testimony and the  
15 discovery that we got, that what she just said, the  
16 proper procedures were not applied correctly, on the  
17 occasion in question, for this result to be reported.

18 And I can show that through the  
19 documents I received in discovery. And I would move  
20 to suppress --

21 THE COURT: What is the problem?

22 MR. FLOOD: Okay. Well, it was tested  
23 three times. The first time it was tested, the  
24 quality controls were not in tolerance, and we have  
25 that documented. And according to her testimony,

1 then, they have to run it again. The second time is  
2 the one that's reported, and the quality controls  
3 were within the check. The sample was then tested a  
4 third time, and there's no 5-percent agreement,  
5 according to their procedures. And she reported the  
6 higher number, which is not in accordance with their  
7 procedures. She got the first one and the second one  
8 were within 5 percent, but it was based on faulty  
9 quality controls.

10 THE COURT: For the first one?

11 MR. FLOOD: For the first one. So,  
12 there's no two that are within the 5 percent, that  
13 are based on quality controls that are within  
14 tolerance, and she said she can't report it unless  
15 that happens.

16 MS. WILLIAMS: Your Honor, can I  
17 address that?

18 THE COURT: Yes.

19 MS. WILLIAMS: So from my  
20 understanding of her testimony, Tube A, and Tube B,  
21 Tube A was the first run; Tube B was the second run.  
22 As she stated, Tube B was done correctly. And so,  
23 because the issue was with Tube A, she reran Tube A a  
24 third time, as she's allowed to. Tube A and Tube B,  
25 the second and the third were then within that

1 5-percent range, and she is allowed to report the  
2 number at that point, based on what I listened to of  
3 her testimony.

4 MR. FLOOD: Right. But the documents  
5 show it went: B, A, A, and B was first, and it was  
6 out of tolerance on three of the controls. And so,  
7 it was run again. And so, the number that's being  
8 reported is what we have. But then, it was run  
9 again; and it came back at a .128 on the A. So, the  
10 A is being reported, but it was analyzed again; and  
11 the second time it was out of 5 percent. So, we  
12 don't have anything --

13 THE COURT: I'm going to send them for  
14 lunch --

15 MR. FLOOD: Okay.

16 THE COURT: -- the jury.

17 MR. FLOOD: I was hoping lunch would  
18 be here earlier, maybe.

19 THE COURT: I think they're going out.

20 MR. FLOOD: And I was going to just  
21 cross on this, Judge, but I can't forego an  
22 objection, based on a third prong of Kelly.

23 THE COURT: Prime, take them out.

24 I'm going to send y'all to lunch.

25 THE BAILIFF: Please rise.

1 (Jury leaves courtroom)

2 THE COURT: You may be seated. We're  
3 still on the record.

4 Mr. Flood, would you like to take the  
5 witness on voir dire with regard to State's 20?

6 MR. FLOOD: Yes, ma'am, I would.

7 VOIR DIRE EXAMINATION

8 BY MR. FLOOD:

9 Q. You provided discovery with respect to the  
10 three different analyses of this blood result?

11 A. Yes.

12 Q. IFS14-16245, that's the lab number we're  
13 dealing with, correct?

14 A. Yes.

15 Q. It was originally analyzed on December 17th  
16 of 2014?

17 A. Yes.

18 Q. And --

19 MR. FLOOD: May I approach the  
20 witness?

21 THE COURT: Yes.

22 Q. (BY MR. FLOOD) I'm going to show you what's  
23 been marked as Defense Exhibit 3. Is that a copy of  
24 the chromatogram of this blood analysis from December  
25 17th, 2014?

1 A. Yes.  
2 Q. Okay. And I'm showing you what's marked as  
3 Defense Exhibit No. 4, 5, 6, 7, 8, and 9, and if you  
4 could, look at those and tell me if you recognize  
5 those and if they pertain to the blood analyses with  
6 respect to this lab number in this case?  
7 A. Well, these -- I believe, that one is from  
8 the 17th runs, correct --  
9 Q. Correct.  
10 A. -- and these are from the 22nd.  
11 Q. Right. So, do you recognize that as a  
12 quality control from the second run on December 22nd?  
13 A. Yes.  
14 Q. Okay. For this sample?  
15 A. No.

16 THE COURT: Which exhibit are you  
17 talking about?

18 MR. FLOOD: This is Defense Exhibit  
19 No. 4. Well, let me --

20 Q. (BY MR. FLOOD) It was in the batch with  
21 this sample, correct?

22 A. No, I --

23 Q. The second analysis of this blood analysis  
24 was on December 22nd, right?

25 A. So, the analysis of -- this is Tube A --

1 Q. Okay. This is Defense Exhibit 3.

2 A. Yes. And the standards -- this is  
3 associated with the data. This is raw data from the  
4 calibration curve before it was calibrated for Tube  
5 B on the 22nd.

6 Q. Right. But --

7 A. But this is not the complete information  
8 from the calibration run.

9 Q. I know. I'm just asking, though, the  
10 second analysis of this sample was run December 22nd,  
11 correct?

12 A. Yes, that's correct.

13 Q. And that's the one that's being reported,  
14 right?

15 A. That's not the final result. The final  
16 result that is on the report was associated with  
17 Tube A, which was run on the 24th, I believe.

18 Q. So, there's a fourth run?

19 A. No, that's the third run. These -- this  
20 calibration curve raw data is from the 22nd, but I  
21 also ran Tube A on the 24th.

22 Q. Okay. So, you analyzed it on the 17th --  
23 what dates did you analyze this blood?

24 A. I ran Tube A on the 17th, Tube B on the  
25 22nd, and then Tube A on the 24th.

1 Q. Of December?

2 A. Yes.

3 Q. And it was never analyzed again?

4 THE COURT: I'm sorry, I need to write  
5 that down, and I wasn't quick enough. Tube A on the  
6 17th?

7 THE WITNESS: Tube A on the 17th, Tube  
8 B the 22nd, and then Tube A on the 24th.

9 THE COURT: Thank you.

10 Q. (BY MR. FLOOD) And then that's all, just  
11 three times?

12 A. Yes. For the alcohol testing, yes.

13 Q. It was never tested again for alcohol?

14 A. No, not to my knowledge.

15 Q. Okay. Let's see. So, do you have -- so,  
16 the 24th is the one that's being reported, correct?

17 A. Yes.

18 Q. Okay. And do you have -- do you have a  
19 copy of the analysis for the 22nd?

20 A. The actual result of the -- tube results?

21 Q. Right.

22 A. Yes.

23 Q. Okay. So, you recognize 4 through --  
24 Defendant's 4 through 9, as they relate to the sample  
25 that was tested on the 22nd -- I'm sorry, I misspoke

1 on the dates?

2 A. Yes, I recognize this data.

3 Q. Okay. And the -- okay. So --

4 MR. FLOOD: Your Honor, I'd like to  
5 tender to opposing counsel 3 through 9 and ask that  
6 they be admitted for the purposes of this hearing.

7 THE COURT: Is there any objection?

8 MR. SAWTELLE: He handed us multiple  
9 documents; we're just going over them because we've  
10 never seen them before.

11 THE COURT: Okay.

12 MR. SAWTELLE: And we'd ask for, like,  
13 a minute.

14 MS. WILLIAMS: State has no  
15 objections, Your Honor.

16 THE COURT: All right. Defense 3  
17 through 9 are admitted for purposes of this hearing.

18 Q. (BY MR. FLOOD) Okay. Do you have a copy of  
19 the result from the 22nd?

20 A. I have the original copy.

21 Q. Okay.

22 THE COURT: Which of your exhibits are  
23 you talking about?

24 MR. FLOOD: It's one that I still need  
25 to introduce. I'm sorry, I got confused with the

1 dates for a second.

2 Q. (BY MR. FLOOD) I'm marking this as Defense  
3 Exhibit 10. And is this the analysis from the 22nd?

4 A. Yes.

5 Q. Okay.

6 MR. FLOOD: And I tender this to  
7 opposing counsel, also, I'd ask that it be admitted  
8 for the purposes of this hearing.

9 MS. WILLIAMS: No objection, Your  
10 Honor.

11 THE COURT: Defense 10 is admitted for  
12 this hearing.

13 Q. (BY MR. FLOOD) So you stated that if the  
14 two tests -- you're only allowed to analyze the blood  
15 three times, right?

16 A. Yes.

17 THE COURT: Excuse me. Is that per  
18 vial, or is that overall?

19 THE WITNESS: Overall. After we -- if  
20 I was to perform it three times and they didn't  
21 match, after that, then, I would have to take it to a  
22 manager and they would make a decision.

23 THE COURT: Thank you. I just wanted  
24 clarification.

25 Q. (BY MR. FLOOD) Okay. So here's Defense

1 Exhibit No. 3. And this would be the analysis run on  
2 December 17th, right?

3 A. Yes.

4 Q. Okay. So, this represents the first  
5 analysis, right?

6 A. Yes.

7 Q. And then, you see the ethanol result here  
8 is .128, correct?

9 A. Yes.

10 Q. So -- then, I'm showing you what's marked  
11 as Defense Exhibit No. 10. And this is also the same  
12 lab number, right?

13 A. Yes.

14 Q. Analyzed on December 22nd, correct?

15 A. Yes.

16 Q. And we see an ethanol concentration -- or  
17 BAC, I'm sorry, of .139?

18 A. Yes.

19 Q. Do you have a calculator with you?

20 A. No.

21 Q. Okay. You don't argue with me that that's  
22 not within 5 percent, correct?

23 A. Yes, that's correct.

24 Q. So, that's outside of the required lab  
25 procedures, right?



1 A. It's outside of my ability to report either  
2 of those values.

3 Q. Okay. So, you can't report them if they're  
4 outside of the 5-percent lab policy, right?

5 A. Not at this point, no.

6 Q. And that goes to -- I mean, for  
7 accreditation, you've got to have certain policies  
8 that are required to be followed, right?

9 A. Yes.

10 Q. Okay. And so, this is December 22nd. And  
11 for that batch, there's more -- you're talking about  
12 the importance of the quality controls to be within  
13 the tolerance range, right?

14 A. Yes.

15 Q. And you admitted that there were some  
16 problems, that there were some quality controls that  
17 were outside of the tolerance range?

18 A. No, I did not admit to that.

19 Q. Okay. So, this is Defense Exhibit No. 4.  
20 And here we have December 22, right?

21 A. Yes.

22 Q. Same day that you analyzed the second  
23 analysis, which was a .139, right?

24 A. Yes.

25 Q. And you see this is the Vial 1 of 1. This

1 is a .025 standard, right?

2 A. Yes.

3 Q. And so, here's (indicating) the acceptable  
4 tolerance range, right?

5 A. Yes.

6 Q. .022 to .027, right?

7 A. Yes.

8 Q. And let's look and see -- we have .027,  
9 right? So, it's at the top, within the tolerance  
10 range, right?

11 A. Yes. I also -- can I explain something  
12 about that chromatogram?

13 Q. I was asking a yes-or-no question.

14 THE COURT: Can she please answer it  
15 for my purposes?

16 (Affirmative response)

17 THE COURT: Thank you. I appreciate  
18 it.

19 THE WITNESS: Can you put it back on  
20 the screen.

21 (Mr. Flood complies)

22 THE WITNESS: So, the way that our  
23 instrument works is, we will -- I'll run that  
24 calibration curve, which consists of the six  
25 standards that I referred to earlier. And what

1 happens is the instrument will just -- this is raw  
 2 data. And so, basically, this value of .027 on this  
 3 chromatogram is based on the last calibration. So,  
 4 as you can imagine, different analysts are running  
 5 our calibration -- it varies from analyst to analyst,  
 6 but our acceptability, our 5-percent rule takes that  
 7 into consideration.

8                   So, on this run, this is the raw data.  
 9 This is not the actual value associated with this  
 10 standard on this curve. Because if you look at the  
 11 top under -- next to "last calibrated," it has a date  
 12 of Monday, December 22nd at 8:01. If you were to  
 13 pull up the actual chromatogram of the sample that  
 14 was run on that day, the date that it was last  
 15 calibrated is the actual curve associated with that  
 16 sample, if that makes sense.

17           Q.   (BY MR. FLOOD) And that's what that refers  
 18 to, because this says, it was acquired at 7:56 on  
 19 December 22. And so, it's the same calibration from  
 20 the day same, right, it's the same day that we're  
 21 talking about?

22           A.   This was run on this day --

23           Q.   Okay.

24           A.   -- but this is the raw data.

25           Q.   Okay. Well -- so, the data says the

1 acceptable range of the 025. The 025 standard -- you  
 2 put in standards to make sure that it's calibrated,  
 3 and it's able to read what it's supposed to be  
 4 reading within the acceptable ranges, correct?

5           A.   Yes.

6           Q.   Okay. And you said this is important,  
 7 because if they're outside of the ranges, you  
 8 wouldn't report it, correct?

9           A.   If my curve -- if this was my final  
 10 result -- if this was my raw result from my curve,  
 11 technically, the .027 is within the range. But I do  
 12 know that the raw data is not -- it doesn't always  
 13 work like that. So, when it says "Date acquired:  
 14 12/22/2014," right here with the "7:56."  
 15 Essentially, what happens is the instrument injected  
 16 the .025 standard, and then it created a calibration  
 17 at 8:01, which is when the chromatogram printed out.

18                   Our calibration curve is -- the actual  
 19 calibration is a result of all six calibrators. So,  
 20 all six calibrators hadn't been injected yet, which  
 21 is why this result is the raw data, and we don't use  
 22 this for our reporting criteria.

23                   In the discovery that I did provide to  
 24 Mr. Flood, there is the actual data, with the actual  
 25 result that is used for the curve and for the



1 samples.

2 THE COURT: Which represented all six  
3 injectors, I think you called them?

4 THE WITNESS: Yes. And it will have  
5 the proper calibration date on it, which will match  
6 the calibration date on the sample of the result that  
7 I did report.

8 THE COURT: "That you did report," you  
9 said? Or you said, "didn't"?

10 THE WITNESS: That I will use to  
11 determine the lower of the 5 percent.

12 THE COURT: Okay.

13 MR. FLOOD: May I continue?

14 THE COURT: Sure.

15 Q. (BY MR. FLOOD) Okay. So that was Defense  
16 No. 4. These are -- when you do the calibration, it  
17 produces a chromatogram like this, right? It will  
18 make a line, but a calibration is introducing a  
19 standard -- different standards, how many points are  
20 you using, five or six?

21 A. Six.

22 Q. Six points. Okay. And it produces a  
23 chromatogram for each one of those standards, you  
24 know, on a staircase going up, right -- that's bad  
25 language. But you used different known standards to

1 calibrate the machine, right?

2 A. Yes.

3 Q. Okay. So, here's -- we have the .025.

4 All -- it was just saying, this one shows it was a  
5 .027. And here's (indicating) what was entered as  
6 the acceptable range and it's within that acceptable  
7 range, right?

8 A. Yes. But this is the raw data that's not  
9 used for the calibration.

10 THE COURT: I think we're okay. I  
11 think we're okay.

12 Q. (BY MR. FLOOD) Okay. This is Defense  
13 Exhibit No. 5. Okay. Again, from the same batch of  
14 the samples that you reported, correct?

15 A. Yes.

16 Q. And this is the 05 quality control  
17 standard, right?

18 A. Yes.

19 Q. Okay. And the acceptable range is 047 to  
20 052, right?

21 A. Yes.

22 Q. And the raw data shows it was 052, right?

23 A. Yes.

24 Q. So, at the very top. It's still within the  
25 range, right? So, when you get into the higher

1 calibrator, this is Defense Exhibit 6. Okay. And  
 2 this would be .10 standard quality control from the  
 3 12/22 batch run, right?

4 A. Raw data, yes.

5 Q. Right. Well, I mean, this is what we asked  
 6 for in discovery, and this is what the lab gave us,  
 7 correct?

8 A. Yes.

9 Q. Okay. So, the acceptable range here is 095  
 10 to a 105, correct?

11 A. Yes.

12 Q. So, this is above the range of the number  
 13 you reported, right -- I'm sorry -- this is below the  
 14 range of the number that was reported?

15 A. For the value of the ethanol that I found  
 16 in the tube, yes.

17 Q. Okay. So, this one we have a problem with  
 18 because the raw data is a .108, which makes it  
 19 outside of the range; is that correct, yes or no?

20 A. No, it's not a problem.

21 Q. No, I didn't ask you that. I said, is the  
 22 .108 that was reported on the chromatogram in this  
 23 raw data, is that inside or outside the acceptable  
 24 range?

25 A. Outside.

1 Q. Okay. And this is Defense Exhibit  
 2 No. 7. Okay. And so, now we have the .20 standard  
 3 from the same batch on 12/22/2014, right?

4 A. Yes.

5 Q. And so, this is above the number that you  
 6 had reported in this case, correct?

7 A. Yes.

8 Q. Okay. So, this is in the area of concern  
 9 of this number, because the number you reported was  
 10 between that 10 and between the 20, correct?

11 THE COURT: I got that. Go on. Come  
 12 on.

13 A. What is the question?

14 THE COURT: I got it. Don't worry  
 15 about it.

16 Q. (BY MR. FLOOD) So, the 0.190 to the .210 is  
 17 the acceptable range, right?

18 A. Yes.

19 Q. And so, this one was a .216, this is  
 20 outside of this range, correct?

21 A. Yes.

22 Q. And then this is Defense Exhibit  
 23 No. 8, .30 standard quality control from this batch  
 24 to Mr. Imrecke's sample, right?

25 A. Yes.

1 Q. And the acceptable range is .285 to .315,  
 2 right?  
 3 A. Yes.  
 4 Q. And the ethanol was a .323 which was -- is  
 5 that inside or outside of the range?  
 6 A. Outside.  
 7 Q. Okay. So you -- so, the first one you had  
 8 was 12/17. The first sample was on 12/17, the second  
 9 one was Monday 12/22, right?  
 10 A. Yes.  
 11 Q. And -- I'm sorry, those weren't within; the  
 12 5 percent?  
 13 A. No, they were not within 5 percent of one  
 14 another.  
 15 Q. Okay. So, then, you ran it again to try to  
 16 make it within 5 percent, correct?  
 17 A. I ran it again because that's our standard  
 18 operating procedure.  
 19 Q. Right. Because you knew that there were  
 20 issues, it wasn't complying with the lab's  
 21 requirements, right?  
 22 A. It was outside of the 5 percent, yes.  
 23 Q. Okay. So, then, you ran it again on  
 24 12/24 --  
 25 A. Yes.

1 Q. -- is that right? Okay. And I have that.  
 2 But -- what was that result?  
 3 A. It was 0.136.  
 4 Q. Okay. I'm sorry. The 12/22, the ones that  
 5 we just went over are the ones that were outside of  
 6 the range. And that was a .139, correct?  
 7 A. Yes.  
 8 Q. And the ones that were out of tolerance, so  
 9 you ran it again. And the second time -- or the  
 10 third time was on December 24th, and it was a 136?  
 11 A. Yes.  
 12 Q. Okay. So, that's the one that you  
 13 reported, right?  
 14 A. Yes.  
 15 Q. Okay. So, from the December 17th results  
 16 of a .128 the 12/24th of the 136 -- you have a  
 17 calculator on you?  
 18 A. No.  
 19 Q. Is that within 5 percent?  
 20 A. No.  
 21 Q. It's not. Okay.  
 22 MR. FLOOD: Judge, I'm just going to  
 23 write this down, just the three dates, if that's  
 24 okay?  
 25 THE COURT: Okay. Quickly.

1 Q. (BY MR. FLOOD) So, 12/17 that was a .128,  
2 correct?  
3 A. Yes.  
4 Q. And there was nothing wrong with that one,  
5 right?  
6 A. Nothing wrong with?  
7 Q. You didn't have any quality controls that  
8 were out of tolerance, did you?  
9 A. No.  
10 Q. Okay. And then the 12/22, you had a .139,  
11 right?  
12 A. Yes.  
13 Q. Okay. But there was no 5-percent  
14 agreement, right?  
15 A. Yes.  
16 Q. Okay. So, then, on 12/24 you ran it again,  
17 and you got a .136, right?  
18 A. Yes.  
19 Q. So, this one was not only within 5 percent  
20 of this one, but this one also had three quality  
21 controls that were out of tolerance, correct?  
22 A. No.  
23 Q. Out of range?  
24 A. No.  
25 Q. Okay. Well, you're not denying what I just

1 showed you and what it says on the paperwork, right?  
2 A. That's the raw data. That's not what's  
3 used to determine the results.  
4 Q. Okay. And you didn't, in fact, report that  
5 one. So, you reported this one. And this one is not  
6 within 5 percent of this one either, correct?  
7 A. Correct.  
8 MR. FLOOD: Okay. I'll pass the  
9 witness.  
10 MS. WILLIAMS: A few questions, Your  
11 Honor.  
12 Can I turn his board so I can look at  
13 it?  
14 THE COURT: Okay.  
15 MS. WILLIAMS: Thank you, Your Honor.  
16 Do you mind if I use this?  
17 MR. FLOOD: Don't mark on it.  
18 MS. WILLIAMS: Oh, no, I won't write  
19 on it, no problem.  
20 MR. FLOOD: I mean, you can use my  
21 paper, that's fine.  
22 MS. WILLIAMS: Okay.  
23 MR. FLOOD: May I mark this, just for  
24 preservation purposes?  
25 THE COURT: Yes.

1 MR. FLOOD: Defense Exhibit 11, for  
 2 demonstrative purposes.  
 3 THE COURT: Okay. It's admitted. I'm  
 4 sure there's no objection, since she's using it.  
 5 Right?  
 6 MS. WILLIAMS: Yes, Your Honor, no  
 7 objection.  
 8 THE COURT: Okay.  
 9 **VOIR DIRE EXAMINATION**  
 10 BY MS. WILLIAMS:  
 11 Q. Just so we can clarify the runs on 12/17,  
 12 what tube was that?  
 13 A. Tube A.  
 14 Q. Tube A. And then the run on December 22nd,  
 15 what tube was that?  
 16 A. Tube B.  
 17 Q. And the run on December 24th, what tube was  
 18 that?  
 19 A. Tube A.  
 20 Q. Just to clarify, so when you ran Tube A the  
 21 first time, and then ran Tube B the first time, what  
 22 happened? Were you able to report those results?  
 23 A. No, I was -- because they're outside of the  
 24 5 percent, I did have to -- our standard operating  
 25 procedure requires that I take the value, the lowest,

1 the tube associated with the lowest value and repeat  
 2 that tube. So, I had to repeat Tube A.  
 3 Q. The tube associated with the lowest value.  
 4 So, you repeated Tube A?  
 5 A. Yes.  
 6 Q. So, when you got a .139 and .136, were you  
 7 by protocol and procedure allowed to report the .128?  
 8 A. No.  
 9 Q. And why was a that?  
 10 A. I couldn't report the .128, because our  
 11 standard operating procedure requires that we have  
 12 two values within 5 percent of one another. If the  
 13 .128 and the .136 were within 5 percent of one  
 14 another, then I would have reported the .128 value.  
 15 Q. Okay. And what about the fact that this  
 16 .128 and this .136 was on the same tube, and you're  
 17 comparing -- you want to compare Tube A and Tube B?  
 18 A. That's -- it just -- it doesn't necessarily  
 19 matter. I would've -- even if I had -- Tube B had  
 20 two lower values, it would still be okay with me to  
 21 report Tube B, based on our standard operating  
 22 procedure. Although, we are comparing A and B.  
 23 Q. Okay. And so, you followed your -- so, did  
 24 you follow your procedure and your protocol?  
 25 A. Yes.



1 Q. And so --

2 MS. WILLIAMS: A few other questions,  
3 Your Honor. If I may publish the Defense Exhibits?

4 THE COURT: Yes.

5 Q. (BY MS. WILLIAMS) I want to take us through  
6 them each, one-by-one, but it seemed like you had  
7 something you wanted to explain. Is this raw data  
8 explanations to the various exhibits, are those  
9 relevant to the results that you reported?

10 A. No.

11 Q. And why are they not relevant?

12 A. Well, the raw data is just -- well, this is

13 actually one of the results so that, in particular,  
14 is important. But the actual standards are --  
15 basically, from day-to-day, we have to recalibrate  
16 the instrument, because it's based on my -- I mean, I  
17 calibrated the instrument based on my ability to  
18 pipette the correct amount into the tube.

19 And so, what I was trying to explain  
20 earlier, is that when it says "last calibrated," if  
21 you look at the -- it doesn't calibrate the  
22 instrument until the last standard runs, which is the  
23 .4 standard. And so, once that standard prints out,  
24 then the instrument is calibrated for the day. And  
25 then, it will reprint the correct values for the

1 .025, the .05, the .1, and everything; so, that data  
2 is not consistent with this raw data.

3 And I'm not -- I don't think I'm  
4 explaining it the best way; so, if you have  
5 questions, to maybe lead me in the correct direction.

6 Q. Okay. So, it sounds as if you're saying --  
7 so you mentioned earlier, that all of the calibrators  
8 had not been properly injected at this point; is that  
9 correct?

10 A. They hadn't been injected yet.

11 Q. At the raw data standards?

12 A. Yes.

13 Q. So, at this point, it's not completely  
14 calibrated, is that a correct interpretation, or am I  
15 misconstruing it?

16 A. Yes. The calibration is complete; once all  
17 six standards have been injected because the  
18 calibration is based on all six standards.

19 Q. Okay.

20 MS. WILLIAMS: And just to clarify,  
21 Your Honor, I was referencing the defense exhibits  
22 regarding the standards. So, that would be Defense  
23 Exhibit No. 8, Defense Exhibit No. 7, Defense Exhibit  
24 No. 4, Defense Exhibit No. 6, Defense Exhibit No. 5.

25 Q. (BY MS. WILLIAMS) Okay. So, ultimately, I

1 just need you to explain in the simplest manner, why  
 2 the number that you reported is accurate, and you're  
 3 able to testify to that fact.

4 A. So the number that I reported is accurate,  
 5 because I followed all the standard operating  
 6 procedures. The instrument was working properly; I  
 7 had no issues. The maintenance was performed, the  
 8 calibration was acceptable, and all of the quality  
 9 controls bracketing all my data fell within range.  
 10 So, based on that information, I was able to provide  
 11 a result that I believe is accurate and reliable.

12 THE COURT: Can I ask a question here?

13 MR. FLOOD: Yes.

14 MS. WILLIAMS: Yes, Your Honor.

15 THE COURT: Thank you.

16 So then I flat -- don't understand.  
 17 Because we just saw three of your test runs -- I  
 18 guess you could call them -- that weren't within the  
 19 range of tolerance that is supposed be acceptable.  
 20 And if I'm using incorrect words, forgive me. And,  
 21 yet, you just said that they are within range. I  
 22 don't understand.

23 THE WITNESS: I was saying that the  
 24 quality controls are -- you're saying the actual  
 25 values of the results of tubes for the case or are

1 you saying --

2 THE COURT: No. No, no, no, of the  
 3 calibration runs.

4 THE WITNESS: Okay.

5 THE COURT: So, if you do these  
 6 calibration runs -- is that okay to say that?

7 THE WITNESS: Yes.

8 THE COURT: -- and they come out  
 9 wrong, outside the range of tolerance for that. How  
 10 does that mean that it is running properly, then?

11 THE WITNESS: I guess, one of the ways  
 12 that I think of it is -- so, I guess -- I'm trying to  
 13 think of an example. It's almost like you can't  
 14 trust the value of -- like, for example, the .025  
 15 standard printed off first, but that .025 standard,  
 16 the value of that is not taking into consideration  
 17 all of my other values because they haven't run yet.  
 18 So, that's why I said that the calibration -- the  
 19 values of the standard for the calibration curve  
 20 aren't -- they're not printed. And -- I mean,  
 21 they're printed, but that's the raw data. It's not  
 22 the actual useable data until we include all of the  
 23 standards --

24 THE COURT: Why?

25 THE WITNESS: -- to determine the



1 result.

2 Because that -- because the  
3 calibration is -- as the instrument is running, it's  
4 taking that value and recalibrating, essentially.  
5 So, it has six standards; it takes the first standard  
6 and injects it, and that's the only standard it's  
7 using to base that value onto it. But since we're  
8 using six, we have a wide range of acceptability we  
9 want. We want to be able to produce a reliable  
10 result from .025 all the way to .42. So, in order to  
11 do that, we can't just use one standard to generate a  
12 great result, right, you need all six calibrators to  
13 cover that wide range.

14 So, even after the first standard is  
15 injected, that's just one of six. It's only, you  
16 know, less than 20 percent of the calibration being  
17 injected out of the entire six that need to run.

18 THE COURT: Okay. But if three were  
19 outside of range, now you're talking about half of  
20 it.

21 THE WITNESS: But they're not outside  
22 of range, they're just -- I have a copy of the  
23 Discovery Order here. And I'm not sure if --  
24 actually, if I printed -- I mean, maybe pulled that  
25 up and showed it you. The actual results and how the

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1 time of the last calibration with that matches what  
2 is reported on the actual chromatogram as the result.

3 THE COURT: Let me ask you this  
4 question: What would you have to see in those  
5 calibration runs to say, Okay, we're not working  
6 properly?

7 THE WITNESS: After the last standard  
8 prints, then the actual -- it's no longer the raw  
9 data that will be printed out. The actual useable  
10 data will be printed out. So, then, if those  
11 standards are outside of the range because it's  
12 including all six standards to determine those  
13 values. Then, it would have to be within that narrow  
14 range of acceptability for each of the standards.

15 THE COURT: Do you have that printout  
16 with you?

17 THE WITNESS: I have it on a disk for  
18 the discovery, but I don't have the actual printout  
19 of it.

20 THE COURT: Do you happen to have  
21 that, do you know, for that day, the 22nd?

22 MR. FLOOD: I don't.

23 MS. WILLIAMS: Your Honor, while he  
24 looks, maybe, I could pull it up more quickly on the  
25 disk.

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1 THE COURT: You want to try that?  
 2 THE WITNESS: Sure.  
 3 THE COURT: Thank you.  
 4 THE WITNESS: So, it's under the  
 5 calibration curve and QC. You just have to, like,  
 6 click through until you get to it.  
 7 MS. WILLIAMS: Just tell me when to  
 8 stop.  
 9 THE WITNESS: This is for the 17th  
 10 run, so the 24th -- or the 22nd should be after that.  
 11 THE COURT: Would it help if you went  
 12 to the computer and looked?  
 13 THE WITNESS: Yes.  
 14 THE COURT: Okay. Would you?  
 15 MR. FLOOD: I may have what she's  
 16 looking for. Are you looking for this?  
 17 THE WITNESS: No, the actual  
 18 chromatograms associated with it.  
 19 MR. FLOOD: I showed you the  
 20 chromatograms.  
 21 THE WITNESS: That's for the raw data.  
 22 THE COURT: Go to the computer, if you  
 23 would please.  
 24 (Witness complies)  
 25 (Recess taken)

1 (Open court)  
 2 THE COURT: All right. So in the  
 3 recess, y'all were able to find the correct page of  
 4 the Discovery?  
 5 MS. WILLIAMS: Yes, Your Honor, we  
 6 were.  
 7 THE COURT: All right. Have you shown  
 8 it to Mr. Flood so he knows what you are looking at?  
 9 MS. WILLIAMS: Mr. Flood is looking at  
 10 the Discovery right now.  
 11 THE COURT: Are you ready, Tyler?  
 12 MS. WILLIAMS: Your Honor, in his  
 13 defense, I just gave him several.  
 14 MR. FLOOD: I think I'm ready.  
 15 THE COURT: Do you have printed out  
 16 copies or just --  
 17 MS. WILLIAMS: I printed out one copy,  
 18 yes, Your Honor.  
 19 THE COURT: All right.  
 20 MR. FLOOD: I am ready.  
 21 THE COURT: Okay. Is the State  
 22 offering something at this time for the purposes of  
 23 this hearing?  
 24 MS. WILLIAMS: Yes, Your Honor, State  
 25 is.

1 Your Honor, may I approach the  
 2 witness?  
 3 THE COURT: Yes.  
 4 MS. WILLIAMS: I apologize.  
 5 We have what's been previously marked  
 6 as State's Exhibit No. 20, State's Exhibit No. 21,  
 7 State's Exhibit No. 22, State's Exhibit No. 23,  
 8 State's Exhibit No. 24, and lastly, State's Exhibit  
 9 No. 25.  
 10 THE COURT: Any objection?  
 11 MR. FLOOD: I have to look at a couple  
 12 of pages. But if I can just look at the rest, I  
 13 don't think I will have any objections.  
 14 No objections.  
 15 THE COURT: All right. State's 21  
 16 through 25 are admitted for purposes of the hearing.  
 17 MS. WILLIAMS: Thanks, Your Honor.  
 18 May I publish?  
 19 THE COURT: Yes.  
 20 MS. WILLIAMS: I'm sorry, I put 20,  
 21 but I'd like to correct that, 21 through 26.  
 22 THE COURT: Okay. So, it should be 21  
 23 through 26?  
 24 MS. WILLIAMS: Yes, Your Honor.  
 25 THE COURT: Thank you.

1 Q. (BY MS. WILLIAMS) Okay. Before the recess,  
 2 you were explaining that there is actual correct data  
 3 that is used. Is this a copy of that data? Is this  
 4 correct data?  
 5 A. Yes.  
 6 Q. And State's Exhibit No. 22, is that also  
 7 the correct data?  
 8 A. Yes.  
 9 THE COURT: When you say "correct  
 10 data," you mean "final data" rather than raw?  
 11 THE WITNESS: Yes. So, this is the  
 12 data that's based on all six calibration standards.  
 13 So, this calibration occurred after my last standard  
 14 was injected.  
 15 THE COURT: So, it just runs all six  
 16 at the same time?  
 17 THE WITNESS: Each sample takes eight  
 18 minutes to run. So, the raw data is -- it's  
 19 injecting the first standard, and then it prints it  
 20 out. It only takes into consideration what it has in  
 21 the system already. So, then, when it injects the  
 22 second standard, it takes into consideration, both,  
 23 the first and the second, but there's still four  
 24 more.  
 25 THE COURT: So, it's cumulative?

1 THE WITNESS: Yes. So, that's why the  
2 final -- so, this .025 value is based on the  
3 linearity of all six standards being considered.

4 THE COURT: So, it adjusts itself?

5 THE WITNESS: Yes.

6 THE COURT: Okay.

7 Q. (BY MS. WILLIAMS) And so --

8 THE COURT: I'm sorry. Let me make  
9 sure I am getting it.

10 So, in the first six runs, you're  
11 telling it what it should be reading, and it comes  
12 back and self-adjusts to those standards. So, if you  
13 were to repeat that, it would read all six correctly?

14 THE WITNESS: Can you say that one  
15 more time?

16 THE COURT: Are you following what I'm  
17 saying?

18 MR. FLOOD: I am, but that's not  
19 what -- I mean, by all means please ask.

20 THE COURT: No. If I'm wrong, I need  
21 to know.

22 The first time you put them all  
23 through you get certain results. And once it's  
24 finished, does the instrument figure out that it's  
25 reading incorrectly, because you've told it what it's

1 supposed to be reading, and then adjusts itself to  
2 calibrate to the proper readings --

3 THE WITNESS: No.

4 THE COURT: -- proper values? What's  
5 really happening then?

6 THE WITNESS: So it's just injecting.  
7 It's, basically, using -- it's collecting data as the  
8 instrument is running, and then once that sixth  
9 standard runs, and it has the data from that, it  
10 takes all six standards into consideration.

11 And then it -- based on those six  
12 standards, collectively, will determine, well, okay,  
13 that means the first standard is this; the second  
14 standard is this.

15 THE COURT: Let's keep going and see  
16 if I catch on after a while. Okay.

17 Q. (BY MS. WILLIAMS) Okay. So right here we  
18 see State's Exhibit No. 21, and this addresses, I  
19 guess, the .025 standard?

20 A. Yes.

21 Q. And so, as you said, this is the run  
22 through after all the samples -- the standards have  
23 been injected; is that correct?

24 A. Yes.

25 Q. And so -- correct me if I'm wrong, after

1 all, six of those samples have been inserted, now  
 2 it's going back to check that .025 standard to see if  
 3 it is within range now that everything has been  
 4 contributed to the instrument?

5 A. Essentially, yes. It's not reinjecting it.  
 6 It's just taking that information and saying, Okay.  
 7 So this is really what the .025 standard is, based on  
 8 all six standards that were injected.

9 Q. Okay. And so, all six standards have been  
 10 injected, now, it's checking to make sure that that's  
 11 really what the standard is?

12 A. After all six standards were injected, now  
 13 it's saying this is what the result is of your .025  
 14 standard.

15 Q. Okay. And so now that all of the standards  
 16 have been injected, the range has been listed as a  
 17 .022 to .027, and the bottom here has it as a .024 is  
 18 that within range?

19 A. No.

20 Q. And so now that we understand that all  
 21 standards have been introduced into the instrument,  
 22 if this reading would have been out of range, what  
 23 would you have had to do per protocol?

24 A. Well, because this is run before I even run  
 25 any case samples, I have a number of choices. I

1 could realiquot the curve and start over, or I could  
 2 just wait until another day and try to redo the  
 3 calibration curve again that day.

4 But this would not be acceptable. I  
 5 could not -- I could not run cases or data with this  
 6 if it was outside of the range.

7 Q. Okay. And it's this final report that you  
 8 have to take into consideration?

9 A. Yes.

10 Q. All right. State's Exhibit No. 22, this is  
 11 regarding the .05 standard; is that correct?

12 A. Yes.

13 Q. And the range states a .047 to a .052, and  
 14 the ethanol states a .047, is that within range?

15 A. Yes.

16 Q. State's Exhibit No. 23, this is in regard  
 17 to the .1 standard; is that correct?

18 A. Yes.

19 Q. And the range is a .095 to a .015; the  
 20 ethanol stated is .098, is that within the acceptable  
 21 range?

22 A. Yes.

23 Q. State's Exhibit No. 24, regarding standard  
 24 .2. It states the range as a .190 to a .210, and it  
 25 has the ethanol as a .197, is that within the



1 acceptable range?

2 A. Yes.

3 THE COURT: To save time, is it fair  
 4 to say that the next few are also within the accepted  
 5 range?

6 THE WITNESS: Yes.

7 THE COURT: All right.

8 Q. (BY MS. WILLIAMS) And so --

9 THE COURT: Move on.

10 MS. WILLIAMS: Okay.

11 Q. (BY MS. WILLIAMS) You mentioned earlier  
 12 that you were building a curve?

13 A. Yes.

14 Q. Did this -- after the instrument had all  
 15 six standards introduced, was this curve within range  
 16 and allowed for you to move forward with the blood  
 17 test?

18 A. Yes.

19 Q. And all of these actions that you took in  
 20 making that determination, is that per the procedure  
 21 and protocol of your lab?

22 A. Yes.

23 Q. And is it required to keep all three of  
 24 your accreditations?

25 A. Yes.

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1 Q. Lastly, it's become apparent that we're  
 2 still determining the accuracy and reliability. Do  
 3 you have in addition that you would like to tell the  
 4 Court in regards to that issue?

5 A. I would. I guess, just solely based on the  
 6 fact that my value was consistent with my values on  
 7 my other runs on other days when there were no  
 8 issues, leads me to believe that this value was also  
 9 reliable.

10 In addition, if there were any issues,  
 11 I'm not the only person that checks the run. We have  
 12 numerous analysts that will, you know, come behind me  
 13 and double-check things, as well as a technical  
 14 reviewer, who will review the entire case as a whole.  
 15 If they would have seen an issue with this curve, the  
 16 run, or anything associated with the case, they would  
 17 have sent it back to be repeated. Or they would have  
 18 talked to me, possibly, the manager, if corrective  
 19 action needed to be taken. After that, the manager  
 20 is also the expert reviewer, who looks over the case  
 21 again.

22 And so, because there are -- I'm not  
 23 aware of any stops or issues or concerns throughout  
 24 the entire time that this case was in the lab. And  
 25 so, because of that, I do believe that the results

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1 are accurate and reliable.

2 MS. WILLIAMS: State passes the  
 3 witness, Your Honor.

4 THE COURT: Mr. Flood.

5 MR. FLOOD: Your Honor, first of all,  
 6 I'd like to request that items in the Discovery Order  
 7 that were not complied with be produced to us at this  
 8 time. Specifically, Item No. 4. We had a Blood  
 9 Discovery Order that was in place since December of  
 10 2014, and No. 4 is: "The laboratory's standard on  
 11 general policies, protocol, and procedures concerning  
 12 testing, quality control, quality assurance,

13 calibration, achievement of the calibration curve,  
 14 and administrative or technical review, if  
 15 applicable, to all disciplines within the  
 16 laboratory."

17 THE COURT: Hold on.

18 Do you have that with you?

19 THE WITNESS: Well, the Discovery  
 20 Order is something that's handled by our quality  
 21 department, and that is what's on the disk.

22 THE COURT: No, no, no. I'm just  
 23 asking, do you happen to have those things with you,  
 24 any of them?

25 THE WITNESS: I'm not sure if it's on

1 the disk. Our quality department also sent an email  
 2 with additional materials, that I believe did include  
 3 that.

4 THE COURT: Okay.

5 MS. WILLIAMS: Your Honor, we received  
 6 that email; and so, we're about to print it. And so,  
 7 Mr. Flood will get the information he subpoenaed for  
 8 on Monday.

9 MR. FLOOD: Judge, we also issued a  
 10 separate subpoena for this witness to bring these  
 11 items to court that were not provided according to  
 12 the agreed Discovery Order. I asked her, and she  
 13 said --

14 THE COURT: Why didn't I know this  
 15 Monday?

16 MR. FLOOD: We were hoping that they  
 17 would come to court with the witness. And now  
 18 there's this issue that comes up, so it makes it all  
 19 the more important.

20 THE COURT: Tyler, I really appreciate  
 21 your thoroughness, I do.

22 MR. FLOOD: We've been diligent, and  
 23 we have an order.

24 THE COURT: I get that. But here's  
 25 the problem: I feel like it's a surprise party that



1 I keep walking in on over and over. Surprise.  
 2 Surprise.

3 MR. FLOOD: That's the way I feel with  
 4 this witness and her testimony.

5 THE COURT: I get that. But if you  
 6 had told me Monday that we were still waiting for  
 7 this discovery that I ordered a while back; stuff you  
 8 subpoenaed for Monday -- you announced ready without  
 9 it.

10 MR. FLOOD: I did.

11 THE COURT: And so, I'm frustrated by  
 12 that.

13 I'm frustrated by the appearance of a  
 14 Motion to Suppress that was, apparently, well thought  
 15 out and well prepared in the middle of testimony.  
 16 I'm frustrated by all these things being sprung. Now  
 17 great strategy, I guess. But I'm worn out by them.

18 So, I'm going to recess for lunch, and  
 19 I'm going to be back here at 2:00 if I can get myself  
 20 some food and get back here.

21 In the meantime, I'm going to let  
 22 y'all have a free-for-all here in the courtroom and  
 23 figure out if you have what you need. Try to get  
 24 some food. And y'all just let me know. If you're  
 25 not ready by 2:00, somebody email me to stay where I

1 am for a few more minute. And by 2:15, I may end up  
 2 sending the jury home. Because at some point, we've  
 3 got to report to them on what we have and what we  
 4 need -- what we have and what they need to hear to  
 5 finish this trial. So -- questions?

6 MR. FLOOD: You also said we would  
 7 reconvene with the Dr. Gualle hearing too. I would  
 8 assume that would take place after this, and that's  
 9 going to take even more time.

10 THE COURT: Do we need -- I'll be  
 11 back. We'll see when we get back. Thank you.

12 (Luncheon recess)

13 (Open court)

14 THE COURT: Okay. We're back on the  
 15 record.

16 During the recess, we have had an  
 17 opportunity, as a group, to sit down and discuss our  
 18 questions with Dr. Guale -- is that how she says her  
 19 name?

20 MS. WILLIAMS: Yes, Your Honor,  
 21 Dr. Guale.

22 THE COURT: As follow up, is there  
 23 anything else the State has with Ms. Peterson?

24 MS. WILLIAMS: No, Your Honor.

25 THE COURT: Mr. Flood, on this issues,

1 of course.

2 **VOIR DIRE EXAMINATION**

3 BY MR. FLOOD:

4 Q. In your standard operating procedures,  
5 there's guidelines that state there's a 5-percent  
6 target value -- plus or minus 5-percent target in the  
7 quality control in the standards, correct?

8 A. The standards and the quality controls are  
9 two different things, so --

10 Q. The standards.

11 A. For the standards, it's 5 percent; but for  
12 our lowest standard, that's 10 percent.

13 Q. Okay. And that the first standards that we  
14 saw in the batch run on the 22nd, there were three  
15 that were outside of the 5 percent, the .10, the .20,  
16 and the .30, correct?

17 THE COURT: Does that apply to those?

18 THE WITNESS: The 5-percent rule does  
19 not apply to the raw data, but it does apply to the  
20 standards that would be used for the runs associated  
21 with the cases.

22 Q. (BY MR. FLOOD) And Mr. Imrecke's sample  
23 that he was tested, his chromatogram, would also be  
24 considered raw data?

25 A. No.

1 Q. What do you call that?

2 A. The difference between the raw data and the  
3 reportable data is, specifically, the date of the  
4 calibration that I mentioned previously. So, on the  
5 reportable data, if you look at the last calibrated,  
6 next to the last calibrated, I believe, it has the  
7 time that's associated with the last time that the  
8 final standard ran and calibrated the instrument,  
9 prior to the case samples being run.

10 Q. But you reported his without being  
11 manipulated, right?

12 THE COURT: Without what?

13 Q. (BY MR. FLOOD) Without it being changed,  
14 you reported that as printed, right?

15 A. I didn't manipulate any data.

16 Q. Well, there's raw data, and then there's  
17 different data, what do you call that?

18 A. The reportable data.

19 Q. And raw data is what the chromatograms are  
20 that comes out of the machine?

21 A. It comes out before the final calibration  
22 standard has been injected, yes.

23 Q. And then, the computer will change the raw  
24 data by a macro or something for it to be reportable?

25 A. This doesn't change that data. It just

1 calculates what the standards would be based on the  
 2 last calibrator being included in the calibration.

3 Q. Okay. Can you have an area count that it  
 4 corresponds to, like, a .027, and then the exact same  
 5 area count that corresponds to an 024? The area  
 6 count should be different if the response is  
 7 different, right?

8 A. Depending on the internal standard, we  
 9 don't directly look at the area count of the standard  
 10 without looking at the ratio between that area count  
 11 and the internal standard.

12 Q. Okay. So, if the internal standard area  
 13 count is exactly the same -- if it's one number and  
 14 the ethanol area count, then we have two numbers, and  
 15 it corresponds to a .027.

16 And then, you have an 024, you  
 17 shouldn't have the exact same internal standard area  
 18 and the exact same ethanol area count, should we?

19 You can't have two different response  
 20 numbers with the exact same area counts on both  
 21 peaks, can you?

22 A. I'm not sure. Because I -- the area  
 23 count -- I think there's other factors that determine  
 24 that, so I can't for sure answer that with a definite  
 25 yes or no.

1 Q. Well, you realize that in this case the two  
 2 different calibration chromatograms that you showed  
 3 us, there's different response numbers --  
 4 quantifications, right?

5 A. The values are different, yes.

6 Q. But all of the internal standard and  
 7 ethanol area counts are exactly the same on both  
 8 sets?

9 A. Okay.

10 Q. Are you aware of that?

11 A. No.

12 Q. So, how are those numbers changed?

13 A. The value of the .025 standard, for  
 14 example, is based on the calibration. So it's like  
 15 we mentioned earlier, the calibration isn't complete  
 16 until after the last standard being used to make the  
 17 calibration has been injected. So, once the last  
 18 standard is injected, then the proper value for each  
 19 of the standards can be determined.

20 Q. All right. That first calibration is where  
 21 it has the vials that are outside of the range on the  
 22 raw data. The machine -- the autosampler, actually,  
 23 picks up a headspace vial and injects the sample into  
 24 the machine -- into the instrument, and it reads it,  
 25 right?

1 A. Yes.

2 Q. Okay. So, to say that it's using  
 3 yesterday's data, or something like that, that's not  
 4 accurate. The beginning of that batch and those  
 5 sheets we showed you where there's three standards  
 6 that were out of range, those are actual samples  
 7 being picked up and injected into the gas  
 8 chromatography, correct?

9 A. Yes.

10 Q. And they were reading out of tolerance,  
 11 correct?

12 A. The raw data did show that it was outside,  
 13 yes.

14 Q. Right. The raw data, the first data, the  
 15 data that came out, the chromatography said that it  
 16 was not in compliance of 4.4.4 of your Standard  
 17 Operating Procedures of saying, it must be within  
 18 5 percent, correct?

19 A. That doesn't apply to the raw data.

20 Q. My question was: Was it within the  
 21 5 percent of the range that it says on the sheet,  
 22 right?

23 A. So, you're saying the printout -- the  
 24 printed value was not within the range that's on that  
 25 printout, yes, that's correct.

1 Q. Okay. And there's nothing in your  
 2 procedures that talks about raw data versus any other  
 3 type of data, it just says standard curves are  
 4 constructed using appropriate procedures and  
 5 pipetting techniques and that the calculated  
 6 concentration standards must be within these  
 7 5 percent. There no -- raw data doesn't ever appear  
 8 in there or other data after that fact, doesn't it?

9 A. Nope.

10 MR. FLOOD: All right.

11 I mean, I don't have any questions,  
 12 Judge. But I reurge my issue.

13 This witness, I don't think, in my  
 14 opinion, sufficiently explained it to the Court, and  
 15 can't explain why the plain language of their  
 16 Standard Operating Procedures wasn't followed. And  
 17 there's no need to talk about raw data versus other  
 18 data. It's not in compliance.

19 THE COURT: All right. And that  
 20 objection is overruled. And that's all we're dealing  
 21 with right now with this witness.

22 I have an idea: Why don't we have the  
 23 officer come in and testify, for purposes of the  
 24 hearing, for a minute or two, and see how many of the  
 25 factors y'all can pull out of him, before I can make

1 a decision as to Dr. Guale.  
2 Okay. Would you return to the witness  
3 room, please.  
4 (Motion to Suppress Continued)  
5 THE COURT: All right. You're back.  
6 Come on up here this time.  
7 THE WITNESS: Okay.  
8 THE COURT: Do you have a calculator  
9 with you?  
10 THE WITNESS: I have it on my phone.  
11 THE COURT: Would you mind pulling  
12 that out?  
13 (Dr. Guale complies)  
14 THE COURT: Are you comfortable using  
15 Widmark's Formula?  
16 THE WITNESS: Yes.  
17 THE COURT: Would you calculate for us  
18 what the result would be with our factors with  
19 Widmark. You tell me what you want me to tell you  
20 first.  
21 THE WITNESS: Okay. So for me to use  
22 the Widmark Formula and do back extrapolation, I have  
23 to assume elimination phase.  
24 THE COURT: Why?  
25 THE WITNESS: The person was

1 eliminating.  
2 THE COURT: Okay. And so, you're  
3 telling me that if we're still in absorption, you  
4 can't do extrapolation?  
5 THE WITNESS: Because there's going to  
6 be missing data. Because you need to have the number  
7 of drinks, you know, that that person had drunk in  
8 grams, and then you have to put that in there. That  
9 means it's interrogate calculation.  
10 THE COURT: And then --  
11 THE WITNESS: It's not going to be  
12 retrograde, it's going to be interrogate calculation.  
13 THE COURT: And so, let's say you  
14 don't know which one it is, which of your formula  
15 would you use?  
16 THE WITNESS: I would use the Widmark  
17 Formula for elimination only, assuming elimination.  
18 THE COURT: Okay. If we can't assume  
19 elimination, what would we use, which of those six  
20 formulas?  
21 THE WITNESS: All formulas are the  
22 same. It's just the volume of distribution -- the  
23 value that they put into the volume of distribution.  
24 THE COURT: Okay.  
25 THE WITNESS: Let me put the formula



1 for you, and I'll explain to you what that means.  
 2 THE COURT: No, I'm with you now.  
 3 THE WITNESS: Okay.  
 4 THE COURT: So, if we don't --  
 5 THE WITNESS: Can I explain this to  
 6 you?  
 7 THE COURT: No, hold on. Hold on. I  
 8 think we're fine. I think they're just different  
 9 ways of calculating the same thing, right?  
 10 THE WITNESS: Yes.  
 11 THE COURT: With different things,  
 12 like body mass, instead of just weight and height and  
 13 things like that?  
 14 THE WITNESS: Yes.  
 15 THE COURT: Okay. So, if you don't  
 16 know when the person last ate, you cannot say with  
 17 certainty whether they were in the elimination phase,  
 18 right?  
 19 THE WITNESS: You can. But you can  
 20 estimate by giving the maximum allowed. Like, for  
 21 instance, if you tell me the person has a full  
 22 stomach, and I want you to calculate it with, you  
 23 know, two-hour absorption from the time that he's  
 24 stopped. Like, he stopped at 12:00 o'clock.  
 25 THE COURT: Okay. Let's say the last

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1 food and drink was at midnight.  
 2 THE WITNESS: Okay.  
 3 THE COURT: And he got stopped at  
 4 1:41.  
 5 THE WITNESS: Okay.  
 6 THE COURT: And tested at 2:36.  
 7 THE WITNESS: Okay.  
 8 THE COURT: And we're going to give  
 9 him the maximum time for absorption --  
 10 THE WITNESS: Okay.  
 11 THE COURT: -- which is two hours.  
 12 THE WITNESS: Okay.  
 13 THE COURT: If I give you those  
 14 circumstances, then, you know he's in the  
 15 absorption --  
 16 THE WITNESS: I can assume he was  
 17 absorbing the whole time until the incident.  
 18 THE COURT: Right. And maybe even 19  
 19 more minutes.  
 20 THE WITNESS: Nineteen more minutes.  
 21 And I can subtract .024, which is the total  
 22 concentration of alcohol you can obtain from having a  
 23 two-hour absorption.  
 24 THE COURT: Okay.  
 25 THE WITNESS: Subtract that from .13,

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1 and I can tell you it's going to be .11, giving the  
2 benefit of the doubt.

3 THE COURT: Okay. So, .13 is what you  
4 had estimated earlier?

5 THE WITNESS: Earlier, at 2:36, it was  
6 .136.

7 THE COURT: But what would you  
8 estimate, then, at the time of 1:41?

9 THE WITNESS: At the time of 1:41 --

10 THE COURT: You're going to --

11 THE WITNESS: So it's only 55 minutes.  
12 It can be --

13 THE COURT: So, it's going to be 13.

14 THE WITNESS: Yeah, yeah.

15 MR. FLOOD: You're assuming  
16 elimination of 1.1?

17 THE COURT: No.

18 MR. FLOOD: That's what she's doing.

19 THE WITNESS: That's the maximum that  
20 you can go. Like, 12:00 o'clock he stopped, okay.  
21 So, he was absorbing for two hours.

22 THE COURT: Right.

23 THE WITNESS: Which is going to be  
24 2:00 o'clock, right?

25 THE COURT: Right.

1 THE WITNESS: So, at that time he  
2 would gain 0.02 grams of alcohol.

3 THE COURT: Right.

4 THE WITNESS: But you have up to 2:36,  
5 which is --

6 THE COURT: The test.

7 THE WITNESS: -- the test, which is  
8 .136. In 30 minutes, he can eliminate, at that time.  
9 And then, in 30 minutes, if a person eliminates .15  
10 in one hour, I can have 30-minute elimination, which  
11 will be .007. So, add that; it will be 311; 143 and  
12 minus 02, which is 123 -- 0.123.

13 THE COURT: Is there any set of  
14 circumstances where someone who's a .136 at 2:36,  
15 would not have been .08 at 1:41 if they stopped  
16 drinking at midnight?

17 THE WITNESS: There's no way they  
18 would be .08. It would be above.

19 THE COURT: Questions?

20 MR. FLOOD: That is totally not true.

21 THE COURT: Are you answering me when  
22 I ask if you have questions?

23 MR. FLOOD: I have questions.

24 THE COURT: There you go. Now, we're  
25 on the right track. Ask them.

**RECROSS-EXAMINATION**

BY MR. FLOOD:

Q. You testified several times that you cannot extrapolate and give a number if a person is in the absorption phase?

A. You can give a range. You cannot extrapolate.

Q. A range?

A. Yes.

Q. What are you assuming to come to that number?

A. What I'm assuming?

Q. Correct.

A. What I'm assuming is -- it will go through the whole formula calculation it has to take. You have to tell me the number of drinks, and how many grams were in there.

Q. Okay. Do you have that -- do you have the number of grams in the drinks?

A. No, nobody told me that. How many grams? I don't have that.

Q. What else do you need? Now, you're doing an extrapolation back into the absorption phase; is that right?

A. Yeah, using that fact. Which the fact is,

I just used it to add the maximum that's from the literature.

Q. You need to know --

A. It's 2 hours.

Q. -- you need to know when his drinking -- you need to know the drinking pattern up to the stop, right?

A. No. It's just only calculating after he stopped. Before that, it doesn't matter whether -- his drinking pattern, or what kind of drinking pattern.

Q. Of course, it does.

A. The reason is, I'm basing my calculation based on the fact I have. That fact I have is: at 2:36 a.m., he had 0.136 grams of alcohol.

Q. Okay.

A. That is a fact. I can go back using that.

Q. To 2:00 o'clock?

A. Yes, to 2:00 o'clock.

Q. But not to 1:41?

A. I can go with that assumption I just gave you.

Q. Assumption?

A. No. Based on a fact of two hours absorption, we just give the benefit of the doubt, he

1 stopped at 12:00 o'clock. That was a fact that I was  
2 given. If he stopped at 12:00 o'clock, I can come  
3 back from .136 to that point using both absorption  
4 and elimination. That's all I need. And this is a  
5 fact. I don't care about what happens before  
6 12:00 o'clock.

7 Q. What if he drank eight beers and three  
8 shots before midnight and that was his last drink,  
9 he's going to be absorbing for two hours?

10 A. Okay. For that, humanly possible, he  
11 should be vomiting and not physically possible to do  
12 that. That's impossible.

13 Q. That's your opinion. The Judge asked you  
14 if there's any scenario. If a person takes a bolus  
15 dose of alcohol at one time before midnight and  
16 stops, there's a scenario where he can keep rising  
17 from the whole two hours, right, and go from a low  
18 BAC to a high BAC, right?

19 A. But you have a stop time at 6:00 o'clock  
20 that doesn't work.

21 Q. I'm not asking about that. The question  
22 the Judge asked you, is there any scenario? And she  
23 didn't say at 6:00 o'clock. So, is there any  
24 scenario, if a person drank a large amount of alcohol  
25 and ended at midnight, in a short amount of time,

1 there is a scenario where he can --

2 A. But that's unbelievable. I don't believe  
3 that scenario exists.

4 Q. So, it's your personal belief, not basing  
5 it on what science dictates?

6 A. Science tells me this is humanly  
7 impossible.

8 Q. To go from a .08 to a 136 in two hours?

9 A. No. For your theory to work, for one  
10 person to drink eight drinks and three shots at one  
11 time, it's physiologically impossible for your body  
12 to absorb that much alcohol. And we're talking about  
13 slow absorption and fast absorption, let's get real  
14 here. When you do scenarios, please, assume a  
15 scenario that's possible, humanly possible.

16 Q. And we are. That's what we're talking  
17 about possibilities, not what your personal belief  
18 is.

19 A person could be at a .07 at midnight  
20 and have drank a certain amount of alcohol, a large  
21 amount, okay, it happens sometimes, right?

22 A. I don't know. Do you have proof? Is  
23 there's an open container in there or anything?

24 Q. I'm asking you to be a scientist right now,  
25 and not what your personal beliefs are.

Fessessework Guale - January 27, 2016  
Recross-Examination by Mr. Flood

1           THE COURT: Hold on. Done. We're  
2 done. Give us a minute. Okay.  
3           I'm granting the Defense objection to  
4 the extrapolation.  
5           I want to thank you for your patience,  
6 especially, with me and trying to explain all of this  
7 to me. I could be wrong in my ruling, but I'm  
8 following some old case law that I've been familiar  
9 with for a long time. Thank you so much for your  
10 help today.  
11          THE WITNESS: Thank you.  
12          THE COURT: All right. Results come  
13 in; extrapolation does not.  
14          Are y'all ready for the jury?  
15          You can release the officer,  
16 probably -- unless there's anything else you needed  
17 him for.  
18          MR. SAWTELLE: I think that would have  
19 been it.  
20          THE COURT: That's all you needed in  
21 the record, right?  
22          MR. FLOOD: Yes, ma'am.  
23          THE COURT: Okay.  
24          THE BAILIFF: Please rise for the  
25 jury.

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Kimberly Peterson - January 27, 2016  
Direct Examination Cont'd. by Ms. Williams

1           (Jury enters the courtroom)  
2           THE COURT: All right. You may be  
3 seated.  
4           Let the record reflect that the jurors  
5 have rejoined us. We have been, obviously, working  
6 on this, all day, outside your presence. And now, I  
7 think, we are ready to continue with you. And,  
8 hopefully, finish the evidence with you today, as  
9 well.  
10          All right. I don't believe this  
11 witness has testified in front of this jury yet, has  
12 she?  
13          MS. WILLIAMS: Yes, Your Honor.  
14          THE COURT: She did. So sorry, it's  
15 been hours. We did stop at that moment with No. 20  
16 being offered.  
17          MS. WILLIAMS: Yes, Your Honor.  
18          THE COURT: I caught up.  
19          All right. State's Exhibit No. 20 is  
20 admitted before the jury.  
21          You may proceed.  
22          MS. WILLIAMS: Thank you, Your Honor.  
23          May I publish?  
24          THE COURT: Yes.  
25

Ramona St. Julian Sonnier, CSR  
Certified Shorthand Reporter

## REPORTER'S RECORD

TRIAL COURT CAUSE NO. 1996292

THE STATE OF TEXAS       \*   IN   THE COUNTY CRIMINAL  
                             \*  
VS.                       \*   COURT   AT LAW NUMBER 13  
                             \*  
EDWIN GADDIS             \*   OF HARRIS COUNTY, TEXAS

\*\*\*\*\*

## GUILT/INNOCENCE PHASE

(TESTIMONY OF DR. FESSESSEWORK GUALE)

\*\*\*\*\*

On the 29th day of January, 2016, the  
following proceedings came on to be heard in the  
above-entitled and numbered cause before the Honorable  
Henry Oncken, Judge presiding, held in Houston, Harris  
County, Texas:

Proceedings reported by machine shorthand.

A P P E A R A N C E S

MS. ANDREA P. BEALL  
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ATTORNEY FOR THE STATE OF TEXAS

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ATTORNEY FOR THE STATE OF TEXAS

MR. JAMES R. FLETCHER  
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SBOT No. 24077619  
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Houston, Texas 77008  
(713) 224-5529  
ATTORNEY FOR THE DEFENDANT

ALSO PRESENT:

Ms. Laura Flores, Paralegal  
Tyler Flood & Associates, Inc.



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DR. FESSESSEWORK GUALE

DIRECT  
4, 23

CROSS  
16, 26

1 January 29, 2016

2 (Jury present)

3 DR. FESSESSEWORK GUALE,  
4 having been first duly sworn, testified as follows:

5 DIRECT EXAMINATION

6 BY MS. BEALL:

7 Q Would you state and spell your name for the  
8 record.

9 A My name is Fessessework Guale,  
10 F-E-S-S-E-S-S-E-W-O-R-K G-U-A-L-E.

11 Q And what do you do for a living?

12 A I'm hired by the Harris County Institute of  
13 Forensic Sciences. I work as an analytical operations  
14 manager in the toxicology laboratory.

15 Q What is your educational background that  
16 qualifies you to hold that position?

17 A I have a degree of the Doctor of Veterinary  
18 Medicine. I also have a Master's Degree in Toxicology.  
19 I am double board certified: One by the American Board  
20 of Veterinary Toxicology and another one by the  
21 American Board of Forensic Toxicology.

22 Q What type of -- well, how long have you worked  
23 with IFS?

24 A Nine years.

25 Q And during those nine years, what have your

1 duties been?

2 A Before I become a manager, I was a team leader  
3 in one of the sections. We have three sections in the  
4 lab; that is, gas chromatography section, liquid  
5 chromatography section, and screening and alcohol  
6 section. So I was organizer of all the section and as  
7 a lead in one section and I was also -- I get promoted  
8 to Toxicologist I -- Forensic Toxicologist I to be a  
9 manager to supervise the whole laboratory personnel and  
10 supervise the workflow of the lab.

11 And now I am the analytical operations  
12 manager in that whole -- I oversee the whole laboratory  
13 operations, the analytical operations from receiving  
14 the samples up to the end of the report; and I make  
15 sure all the cases that we receive, the samples we  
16 receive, take the proper rotation and follow the  
17 standard operation procedures. And then I -- when I  
18 believe it's the right result, I will sign them out.

19 Q Are you a member of any professional  
20 organizations?

21 A Yes.

22 Q What are those organizations?

23 A American Academy of Forensic Sciences,  
24 Southwestern Association of Toxicologists, California  
25 Association of Toxicologists, American Board of

1     Veterinary Toxicology.

2           Q     What education and training have you had  
3 specifically in the area of -- the effect of drugs on  
4 the human body?

5           A     When you do Master's in Toxicology, that's  
6 what you study. You would have an extensive study of  
7 drugs and other chemicals and other toxins and poisons  
8 and how they interact in the environment and how they  
9 interact once you introduce them in your body, what the  
10 body does to them and what happens -- you know, what is  
11 the effect of the drug and how they are expressed out,  
12 behaviorally, physiologically.

13                     So those are extensive studies. And in  
14 the course of your studying, you know, to pass the  
15 board exam, you review a lot of literatures, research  
16 articles; and you update yourself with those every day.  
17 You read every day, and then you pass your board. And  
18 then after that, in the workforce, you go to  
19 conferences, present papers, you publish papers; so you  
20 are always continuously studying about the drug effects  
21 and what they do to you.

22           Q     Have you yourself published papers?

23           A     Yes.

24           Q     And what papers are those?

25           A     Just recently I had published analytical paper

1 using the state of the art instrument, which we call  
2 time-of-flight instrument; and I use that instrument to  
3 screen for the recently, you know, designer drugs that  
4 our young people are dying off. So we have that  
5 instrument and we are the first laboratory to do that  
6 and I published that. That was my recent publication.  
7 I have others.

8 Q Are you familiar through your education,  
9 experience, and training with the substances  
10 methamphetamine and amphetamine?

11 A Yes.

12 Q Can you educate us on methamphetamine and what  
13 it is?

14 A Methamphetamine is a very dangerous drug.  
15 It's a controlled substance, and you should never use  
16 it. It's a schedule II controlled substance; and the  
17 reason that nobody should use that is because it's  
18 addictive, it's dangerous, not only to yourself and  
19 also to the community, and the people that you are  
20 living with. And once you are hooked up, you become  
21 addicted to it. It's very hard to come off of it, so  
22 it's very dangerous.

23 What it does is it's a central nervous  
24 system stimulant. So in very low doses, you know, you  
25 get high, you get excited. That's the exhilaration

1     that, you know, the young people are -- and the adult  
2     people want to have in the beginning.

3                 Then the more you use it, the more you  
4     start to get addicted; and then you start using more.  
5     Then you end up having a behavior that hurts yourself  
6     and other people, you know. You get into very abusive  
7     behaviors, get into hallucinations, violent behaviors;  
8     and you become a risk taker while you are driving.

9                 So, you know, you feel like you are the  
10    only person in the world and nobody exists, so you can  
11    do whatever you want. You know, it gives you the  
12    courage and the energy to do whatever you want.

13                So it's really, really very dangerous and  
14    you can also die of it with overdose because it affects  
15    your central nervous system. It also affects your  
16    cardiovascular system; so you can die of a heart  
17    attack, you can die of excited delirium where, you  
18    know, you don't know where you are, you don't know what  
19    you do, you hallucinate, and you become out of your  
20    body.

21                It's a very dangerous drug. In a very  
22    small doses, it can be used -- there's a prescription  
23    that's a very, very small dose for narcolepsy where  
24    people are frequently sleeping; so they can take that  
25    medication, but that's a prescription drug. It's very



1 small dose, just for that purpose.

2 There's also a prescription for ADD, or  
3 attention-deficit disorder. People can take that with  
4 prescription. That's also a very small dose, which  
5 does not give you addiction behavior.

6 Q Let me ask you about those types of  
7 methamphetamine. There are -- there's a  
8 l-methamphetamine and a d-methamphetamine, correct?

9 A Yes.

10 Q What is l-methamphetamine?

11 A As in the chemistry of it, "l" and "d" stands  
12 for levorotatory or dextrorotatory. That means these  
13 are isomers. These are the same compounds but the  
14 chemistry formula is different. You know, the hydrogen  
15 is attached, the atom is attached this way or that way.  
16 This is the same molecule; but, functionally, because  
17 they are, you know, structurally different, the "l" one  
18 can be used without stimulating your brain.

19 Like, for instance, we have the Vicks  
20 inhaler that will have the l-methamphetamine in it  
21 that's been used for decongestant purposes. It doesn't  
22 go to your central because it's "l." But the dangerous  
23 one is a "d" one; that's the one that affects your  
24 central nervous system.

25 Q So is the d-methamphetamine the illegal

1 version of methamphetamine?

2 A Yes.

3 Q Now, you are aware that -- are you aware that  
4 your laboratory produced a lab in this case?

5 A Laboratory, yes.

6 Q A lab report?

7 A Yes.

8 Q And is that what we see here in State's  
9 Exhibit 14?

10 A Yes.

11 Q Is that your name in the bottom right-hand  
12 corner?

13 A Yes.

14 Q Now, why did you sign off on this lab report?

15 A I am the expert on this cases and I have to  
16 look at it; and I have to see whether, you know, the  
17 whole case is done properly and I have to sign it out.  
18 It's in our standard operation procedures, an expert  
19 has to look at the report and make sure the case is  
20 done properly; and then I sign it out.

21 Q Looking at this lab report, what is -- what  
22 are the levels of methamphetamine and amphetamine in  
23 the defendant's blood?

24 A The amphetamine is less than .10 milligram per  
25 liter. In other words, .10 means 100 nanograms; and

1 methamphetamine is also listed as .10 milligram per  
2 liter, which is less than 100 nanograms of the blood in  
3 the sample.

4 Q Is it possible that the methamphetamine on  
5 this lab report is the l-meth, or the legal meth?

6 A It is possible because we don't have a matter  
7 to differentiate between the two.

8 Q How do we know that this is not the l-meth?

9 A Usually, when the -- when there's -- when it's  
10 not the l-meth, you find both of them in there.

11 When it is the l-methamphetamine by  
12 itself, there is a chance that you may not see the  
13 amphetamine in there.

14 Q Why is amphetamine important?

15 A Because it's a metabolite. You have to see  
16 both. It's -- when you see both drugs in the same  
17 blood sample, that means it comes from the  
18 d-methamphetamine. In most cases.

19 And the reason is, when it is an  
20 l-methamphetamine, the ones that are being used in --  
21 as a decongestant, you would not see this level in the  
22 blood. So most definitely when you see two of the  
23 parent and the metabolite, that means it comes from the  
24 "d."

25 Q Okay. So we know that this is -- am I

1 understanding you correctly in that this is the  
2 d-methamphetamine because the metabolite is there?

3 A Yes, unless this is something prescribed for  
4 narcolepsy or for ADD.

5 Q Okay.

6 A Unless those two are there, yes, this is  
7 definitely from the "d."

8 Q And in terms of ADD, which of these two  
9 substances is used to treat ADD?

10 A Actually, the ADD is only the amphetamine, the  
11 Adderall.

12 Q Okay. So would we see the methamphetamine if  
13 this were the product of ADD medication?

14 A No, you would not see the methamphetamine.

15 Q And would we see the amphetamine if this were  
16 the product of narcolepsy medication?

17 A Yes.

18 Q Okay. Would we see -- well, did you have a  
19 chance to review the video in this case?

20 A Yes.

21 Q And while reviewing the video, did you see any  
22 behavior of the defendant consistent with somebody with  
23 these levels of methamphetamine?

24 MR. FLETCHER: Object to leading, Your  
25 Honor.

1 THE COURT: Overruled.

2 THE WITNESS: Can I go ahead?

3 MS. BEALL: Yes.

4 A Yes, there are some symptoms that are  
5 associated with this level of the drug, which I see is  
6 complete fatigue of the person because these are low  
7 levels. It indicates that the person was at the  
8 crashing stage. That means where the drug is going  
9 out, so the body is yearning or wanting more;  
10 otherwise, it's going down. So we call it, you know,  
11 high when you have euphoric state as soon as you get  
12 the drug and the drug is affecting your brain, gets you  
13 excited; but as time progresses, it goes down, down,  
14 down and then you become really, really more fatigued  
15 because that drug that gives you the energy is not in  
16 you, so you get really fatigued.

17 So the level indicates to me that this is  
18 at the end of the drug and the symptom matches with  
19 this level.

20 Q (By Ms. Beall) And what symptoms did you  
21 specifically see in the defendant's behavior?

22 A He was a little bit agitated and he was  
23 also -- was not performing on the walk and turn  
24 properly. He was not holding his head properly. He  
25 was really fatigued. His talk, the way he talk is

1 another one. His actions and -- you know, repetitive.  
2 Doing something repetitive in your hand is another  
3 thing. That's, you know, out of consciousness.  
4 Subconsciously you are doing something that -- because  
5 your body is -- your body is missing something that  
6 it's used to.

7 Q And are you familiar with the term "tweaking"?

8 A Yes.

9 Q What does that term mean?

10 A Tweaking is the -- it's just a nervous effect  
11 where this is one of the symptoms of using this drugs,  
12 is tweaking; so, yes, there was a little -- not  
13 exaggerated, but there was a little tweaking there.

14 Q That you observed in the defendant?

15 A Yes, uh-huh.

16 Q Is there any such thing as just a little bit  
17 of meth to where it doesn't affect your mental and  
18 physical faculties?

19 A Well, it's my professional opinion if there is  
20 meth, it is affecting your mental and physical  
21 faculties, no matter what concentration it is.

22 Q Is there any such thing as a therapeutic  
23 amount of methamphetamine?

24 A Yes. The therapeutic amount is as long as  
25 it's under that prescription; and then there is a



1 therapeutic amount that you can obtain if you got that  
2 prescription to counteract a natural condition, like  
3 the narcolepsy or ADD. There is a therapeutic level,  
4 yes.

5 Q How do we know that this is not just a  
6 therapeutic level?

7 A It crosses in there. It crosses in the  
8 therapeutic level.

9 Q Okay. And what you observed in the defendant  
10 and what you know of the amount of methamphetamine and  
11 amphetamine present in this lab, do you believe that he  
12 was just using a therapeutic amount of methamphetamine?

13 A I -- because this is a low level of  
14 methamphetamine and because of what I saw, I -- I  
15 hardly believe this is a prescription. I cannot  
16 believe this is a prescription. If it is a  
17 prescription, he should not be behaving that way  
18 because that behavior is coming -- comes from repeated  
19 use of this drug. Usually the prescription should not  
20 last long time. So the behavior that I see does not  
21 come from a prescription.

22 Q So in your professional opinion, was this the  
23 street meth, the illegal meth that we know about?

24 A Yes.

25 MS. BEALL: Pass the witness.

1 THE COURT: Mr. Fletcher.

2 MR. FLETCHER: Thank you, Your Honor.

3 CROSS-EXAMINATION

4 BY MR. FLETCHER:

5 Q Dr. Guale, the standards have to be within an  
6 acceptable range in the raw data, correct?

7 A You mean -- what standards?

8 Q The standards have to be -- when you are doing  
9 a GC/MS, they have to be within the acceptable range in  
10 the raw data, correct?

11 A Yes.

12 Q Okay. And if they are not in the acceptable  
13 range, then that would be a problem, right?

14 A Yes.

15 Q Okay. You testified earlier that when -- some  
16 of the common signs of a person being intoxicated off  
17 methamphetamine, they would be -- you would expect to  
18 see violent behavior; is that correct?

19 A At the time, yes, depending on the stage where  
20 he was.

21 Q You testified that you would expect to see a  
22 person that's intoxicated on meth have a lot of energy,  
23 have high energy?

24 A Yes.

25 Q Okay. And you testified that you would expect

1 to see someone who is very excited?

2 A Yes.

3 Q And they might even be in delirium?

4 A Yes.

5 Q And you also testified that a person  
6 intoxicated on meth could have hallucinations?

7 A Yes.

8 Q Correct me if I'm wrong, but I heard you say  
9 that the "d" version of methamphetamine has been used  
10 to treat narcolepsy before?

11 A Yes.

12 Q Okay. And that's a prescription that a doctor  
13 can give to treat narcolepsy includes d-meth, right?

14 A Yes.

15 Q And you have no testimony today whether or not  
16 Mr. Gaddis has a prescription for any narcolepsy,  
17 right?

18 A No.

19 Q You don't know, right?

20 A I don't know.

21 Q Amphetamine, like we see on the lab result  
22 here, does not necessarily have to be a metabolite of  
23 methamphetamine, correct?

24 A There are others like the Adderall.

25 Q Right. You can see -- well, I'll put it this

1 way: Amphetamine is a common ingredient in many  
2 prescription medications, right?

3 A There are very few that we know.

4 Q Well, there are prescription medications that  
5 contain amphetamine; and they are pretty common, right?

6 A They are not common.

7 Q For ADD, it's pretty common, right?

8 A For ADD, yes.

9 Q So you don't know whether or not Mr. Gaddis  
10 has a diagnosis and prescription for ADD?

11 A No, I don't.

12 Q So it's entirely possible that the result of  
13 amphetamine that we see up there could have been a  
14 result of an ADD prescription and not necessarily a  
15 metabolite of methamphetamine, correct?

16 A But the fact that methamphetamine is there --

17 MR. FLETCHER: Object to nonresponsive,  
18 Your Honor.

19 THE COURT: Just listen to the question,  
20 and answer the question that he asks you.

21 Q (By Mr. Fletcher) It's possible, right?

22 A Amphetamine is, yes.

23 Q Now, isn't it possible, Dr. Guale, that a  
24 person could have a prescription drug containing  
25 methamphetamine and be using over-the-counter

1 medications containing methamphetamine and have the lab  
2 results that we see here?

3 A You mean, both --

4 Q Yes.

5 A -- used? Sure.

6 Q Right. So it's entirely possible that  
7 Mr. Gaddis was using a product containing  
8 l-methamphetamine and a prescription containing  
9 amphetamine and we would see lab results like what we  
10 are looking at here, right?

11 A Correct.

12 Q And you don't have any testimony that that --  
13 that he is not doing that, correct?

14 A No.

15 Q In fact, your lab cannot determine the  
16 difference between l-meth and d-meth without a chiral  
17 column, right?

18 A Correct.

19 Q And you do not -- your lab does not have a  
20 chiral column?

21 A No.

22 Q Okay. And the levels that we see here, all we  
23 know is that they are below the lowest calibration  
24 curve -- the lowest point on your calibration curve,  
25 right?

1 A Yes.

2 Q You can't tell the jury a specific level of  
3 either of those drugs, correct?

4 A No.

5 Q You can just say, well, he's got less than  
6 this and that's all we know, right?

7 A Yes.

8 Q Okay. Now, Dr. Guale, I'm going to point your  
9 attention -- direct your attention to the lab result.  
10 There was no pseudoephedrine detected in this sample,  
11 correct?

12 A No.

13 Q Okay. And isn't it true, Dr. Guale, that one  
14 of the most common ingredients in the illegal form of  
15 methamphetamine is pseudoephedrine?

16 A Say that again.

17 Q Isn't it true that one of the basic  
18 ingredients for illegal methamphetamine is  
19 pseudoephedrine?

20 A They make methamphetamine out of it, but we  
21 don't see it.

22 MR. FLETCHER: Nonresponsive, Your Honor.

23 Q (By Mr. Fletcher) Isn't it correct that  
24 pseudoephedrine is commonly used to make  
25 methamphetamine?



1           A       It's used, yes.

2           Q       Okay. But no pseudoephedrine in this lab  
3 result, right?

4           A       No.

5           Q       You testified that you watched the video and  
6 you observed Mr. Gaddis to be fatigued, right?

7           A       Yes.

8           Q       I assume you watched the video where he tells  
9 the police that he had just finished -- or that he had  
10 worked from 6:00 until 7:00 that night, correct?

11          A       Correct.

12          Q       Right. So it's entirely possible that the  
13 fatigue exhibited by Mr. Gaddis on the video was caused  
14 by him working a 12-hour shift, right?

15          A       Could be.

16          Q       Okay. And you testified earlier that any  
17 amount of methamphetamine causes intoxication. Did I  
18 hear that correctly?

19          A       It can affect your mental and physical  
20 faculties.

21          Q       Okay. It can.

22          A       Uh-huh.

23          Q       Okay. And I also heard you testify that this  
24 is a very low level of both of the -- both of the  
25 active metabolites that we see here, right?

1           A       Yes.

2           Q       Okay.  And just to reiterate, Dr. Guale, the  
3 methamphetamine that we see here could possibly be the  
4 l-methamphetamine variety, right?

5                   MS. BEALL:  Objection, asked and  
6 answered.

7                   THE COURT:  That's overruled.

8           A       The l-methamphetamine --

9                   MR. FLETCHER:  Nonresponsive, Your Honor.

10          Q       (By Mr. Fletcher) Just "yes" or "no"?

11          A       There is no "yes" or "no" answer for this.

12          Q       Isn't it possible it can be l-methamphetamine?

13          A       No.

14          Q       It's not possible?

15          A       The l-methamphetamine that we do -- you do use  
16 on the Desoxyn is not absorbent enough into your  
17 system --

18                   MR. FLETCHER:  Object to nonresponsive,  
19 Your Honor.

20          Q       (By Mr. Fletcher) You can't tell us what the  
21 level was based off these lab results, right?

22          A       No.

23          Q       Okay.

24                   MR. FLETCHER:  Pass the witness, Judge.

25                   THE COURT:  Anything from --

1 MS. BEALL: Redirect?

2 THE COURT: Yes.

3 REDIRECT EXAMINATION

4 BY MS. BEALL:

5 Q Why isn't it possible that this would be  
6 l-methamphetamine?

7 A Because the l-methamphetamines that are out  
8 there as a decongestant are locally applied in your  
9 nose; so mostly, they do not come into your system to  
10 be identified that much, even at the lower level.

11 Q So if this were methamphetamine -- or  
12 l-methamphetamine, would it even register on your lab's  
13 equipment?

14 A By itself, yeah, it would show as a  
15 methamphetamine. There's no differentiation between  
16 the two. I'm talking about the possibility of using  
17 the decongestant to show up as a methamphetamine  
18 because we cannot, you know, differentiate between the  
19 two. But the question is: Does a person can take both  
20 "l" and d-methamphetamine and it would show like this?  
21 Yes, both of them.

22 Q Okay. So how do you know that this is  
23 d-methamphetamine? Looking at this lab report, how do  
24 you know that the defendant's blood had the illegal  
25 form of methamphetamine?

1 MR. FLETCHER: Objection, Your Honor.  
2 This is speculation, and it's been asked and answered.

3 THE COURT: Overruled.

4 A Usually, when you are abusing drug, you can  
5 have both mixed or pure or by itself. There are three  
6 ways to get it. Okay? Some is mixed, "l" and "d"  
7 mixed, and some "d" by itself, which mostly that you  
8 get --

9 MR. FLETCHER: Objection to  
10 nonresponsive, Your Honor.

11 THE COURT: Overruled.

12 Q (By Ms. Beall) You can continue.

13 A Okay. So you get the "d" by itself, you get  
14 the "d" and the "l" together, and you got only "l." So  
15 the only "l" is the Desoxyn, or the decongestants. You  
16 get only "l" form because you don't want them to go to  
17 your brain. There are "d" and "l" combinations where,  
18 you know, the prescription medication can be a "d" and  
19 "l" together, like the Desoxyn for the narcolepsy; it  
20 may have both.

21 There are also -- the obesity medications  
22 that you take for obesity that has both of them in  
23 there. So for both, we cannot differentiate. If the  
24 person takes the abuse and the obesity, we can't; but  
25 if it is only "l," it would not show up. And only "l"

1 would not show up this much. That's what my argument  
2 is.

3 Q Okay. So this is not an inhalant, is that  
4 what you are saying?

5 A Yes, this does not come from an inhalant.  
6 That's what I'm talking about, or this is not "1" only.

7 Q Why doesn't pseudoephedrine show up in  
8 positive results from methamphetamine?

9 A Because the ephedrine is what the  
10 methamphetamine come out of. It's changed to make  
11 methamphetamine, so you don't see it. It's the base  
12 compound where the user pseudoephedrine and change it  
13 to methamphetamine. So there is no pseudoephedrine.

14 Q Based on what you see in the video and what  
15 you viewed in this lab report, why is it that you don't  
16 believe this is just legal narcolepsy medication?

17 MR. FLETCHER: Asked and answered, Your  
18 Honor. Objection.

19 THE COURT: I'll allow her to answer it.

20 A The reason is if it is a narcolepsy  
21 medication, it should be a low level, which this could  
22 be a low level but the person would not have that kind  
23 of side effect. Narcolepsy is people who constantly  
24 sleeping. So to make them alert is what the medication  
25 is given to them. They should be alert and they should

1 be working normal but what I see here is a person who  
2 has been abusing the drug and at the end --

3 MR. FLETCHER: Objection to speculation,  
4 Your Honor.

5 THE COURT: Overruled.

6 Q (By Ms. Beall) A person who has been abusing  
7 and...

8 A A person who is habitually doing it and then  
9 there's a high time, there's also a low time; but what  
10 I see in that person is at a crash phase, what happens  
11 at the crash phase, when you crash or the medication is  
12 weaning out of your body. That's what I see here.

13 Q So in this lab report, do we see the current  
14 processing of methamphetamine in the body?

15 A Yes, it's being metabolized.

16 MS. BEALL: Pass witness.

17 RECROSS-EXAMINATION

18 BY MR. FLETCHER:

19 Q So, Dr. Guale, you don't know anything about  
20 Mr. Gaddis' medical history, correct?

21 A No.

22 Q You don't know anything about his prescription  
23 history, correct?

24 A No.

25 Q And you don't know anything about his family



1 history or anything like that, right?

2 A No.

3 Q Okay. Do you have any testimony that he  
4 abuses methamphetamine, personally? Do you know of  
5 anything that he does that?

6 A No.

7 Q No. Okay.

8 MR. FLETCHER: Pass the witness, Your  
9 Honor.

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1 STATE OF TEXAS

2 COUNTY OF HARRIS

3  
4 I, Deanne Bridwell, Official Court Reporter  
5 in and for County Criminal Court at Law No. 13 of  
6 Harris County, Texas, do hereby certify that the above  
7 and foregoing pages contains a true and correct  
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12 which occurred in open court or in chambers and were  
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15 I further certify that this Reporter's Record  
16 of the proceedings truly and correctly reflects the  
17 exhibits, if any, admitted by the respective parties  
18 and requested to be made a part of this record.

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21 February, 2016.

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/s/Deanne Bridwell  
Deanne Bridwell, Texas CSR, RPR  
Expiration Date: 12/31/16  
Official Court Reporter  
County Criminal Court at Law No. 13  
Harris County, Texas  
1201 Franklin  
Houston, Texas 77002  
(713) 755-2376

1 MR. SHELLIST: Pass the witness.

2 MR. STILL: Nothing further.

3 THE COURT: May the witness be excused?

4 MR. SHELLIST: Yes, sir.

5 MR. STILL: Yes, sir.

6 THE COURT: You may be excused. Thank  
7 you.

8 Please call your next witness.

9 MR. STILL: State calls Fessesessework  
10 Guale, Dr. Guale.

11 THE COURT: You may proceed.

12 MR. STILL: Thank you, Your Honor.

13 DR. FESSESSEWORK GUALE,  
14 having been first duly sworn, testified as follows:

15 DIRECT EXAMINATION

16 BY MR. STILL:

17 Q. Good afternoon.

18 A. Good afternoon.

19 Q. What is your name, ma'am?

20 A. Fessesessework Guale.

21 Q. Do you have a PhD?

22 A. I have a DBM, a doctorate of veterinary  
23 medicine.

24 Q. Is it all right if I call you Dr. Guale?

25 A. That's my name of what I am addressed to.

1 Q. So, Dr. Guale, how do you spell your last name?

2 A. G-u-a-l-e. And my first name is

3 F-e-s-s-e-s-s-e-w-o-r-k.

4 Q. Thank you. Where do you work?

5 A. I work for the Harris County Institute of  
6 Forensic Science, toxicology section.

7 Q. What is your job there?

8 A. I am the toxicology analytical operations  
9 manager. That's my title. That means I manage the  
10 whole laboratory function, the day-to-day activity of  
11 the laboratory. The analytical runs. That means the  
12 work flow. I analyze the work flow. And I also  
13 supervise all the analysts.

14 Q. What is your educational background?

15 A. I have a doctorate of veterinary medical  
16 degree. I also have a masters degree in toxicology. I  
17 also have two board certifications, one by the American  
18 Board of Veterinary Toxicology as a diplomat and the  
19 other one is by the American Board of Forensic  
20 Toxicology as a forensic toxicologist specialist.

21 Q. Have you worked at any other labs in the course  
22 of your career?

23 A. Yes.

24 Q. You don't have to go through them all. What  
25 other cities have you worked in?

1       A.    I worked in Oklahoma at the Animal Disease  
2   Diagnostic Lab, toxicology section.  I also worked for  
3   Denver Health Science Center, Denver, Colorado, in the  
4   toxicology lab as a manager.  And the third one is where  
5   I am now.

6       Q.    Dr. Guale, have you ever received any education  
7   or training on the effects of alcohol on the human body?

8       A.    Yes, sir.

9       Q.    Are you familiar with a phenomenon known as  
10  tolerance?

11      A.    Yes.

12      Q.    What is tolerance?

13      A.    Tolerance is the way your body -- what  
14  tolerance to alcohol is, is it affects your central  
15  nervous system.  So you will say you have tolerance,  
16  your brain function creates an adaptation to the  
17  disruption of functions, the brain functions that are  
18  caused by alcohol.  So there are several different kind  
19  of tolerances.  One is --

20      Q.    I'm sorry.  I have to break this up into  
21  question and answer.  What are the different kinds of  
22  tolerances?

23      A.    Okay.  There's functional tolerance.  That  
24  means certain functions of your body that's dictated by  
25  your brain would get compensated.

1                   For instance, if you are asked to do a  
2 test and if you are asked to do driving, that takes hand  
3 and eye coordination. The tolerance you develop for  
4 that specific function may not be the same as the  
5 tolerance that you develop for the other function. That  
6 means there are different rates where your brain  
7 function tolerates different impairments.

8           Q.    I'm sorry. How does one acquire a tolerance?

9           A.    I am going to come to that.

10          Q.    Excuse me. I'm sorry.

11          A.    The way you develop tolerance is by doing  
12 certain things over and over again. In alcohol cases,  
13 these are chronic alcoholics, that people drink over and  
14 over again. So because of that repeated consumption of  
15 the alcohol, the brain has to compensate for those. So  
16 that's how you develop the tolerance.

17          Q.    Okay. Just in practical terms, in simple  
18 person's terms for me, can someone have lost the normal  
19 use of their physical faculties due to alcohol and yet  
20 look -- appear to be normal on the outside?

21          A.    Yes.

22          Q.    And would that -- is tolerance exhibited --

23                   MR. SHELLIST: Judge, I'm sorry. I  
24 apologize. I hurt my back. That's what I am doing  
25 this.



1 I am going to object to her testimony on  
2 two grounds. First, under 702 because I believe she's  
3 testifying as an expert in general -- generally --  
4 general behaviors to my knowledge. If you will let me  
5 take her own voir dire, she will probably say she has  
6 never met my client and never talked to her. So she is  
7 testifying on general knowledge.

8 THE COURT: Let's do this outside the  
9 presence of jury. All right?

10 MR. SHELLIST: Sorry, Judge.

11 THE BAILIFF: All rise.

12 (Open court, Defendant present, no jury)

13 MR. SHELLIST: Your Honor, I have chronic  
14 back problems about two times a year and I am feeling  
15 it.

16 Forgetting for a moment and putting aside  
17 the qualifications of an expert, she said she has a  
18 masters in toxicology, I believe, in addition to the one  
19 for veterinary.

20 She's attempting to testify somehow that  
21 there's a phenomenon out there called tolerance to  
22 alcohol. What that is doing is suggesting to the jury  
23 somehow -- first of all, this is something that I think  
24 any layperson is capable of understanding on their own.  
25 Any layperson would understand, oh, you've got tolerance

1 or not. We have known that ever since we were 15 or 16.

2 I don't think even if she's an expert in  
3 that area, that that would be something that would  
4 assist the jury in understanding it, but because she's  
5 never met my client, has no idea about her history is,  
6 and is now throwing out things such as chronic  
7 alcoholism and alcoholic.

8 I would also then argue that would carry  
9 over to 403, and any prohibitive value it would have  
10 certainly outweighs -- potentially outweighs the  
11 prejudicial effect to my client.

12 THE COURT: Mr. Still?

13 MR. STILL: I believe I can -- I don't  
14 know what Dr. Guale is going to say, but I  
15 believe --

16 THE COURT: I hope you would. Would you  
17 like to do this outside the presence of the jury and see  
18 if we need to continue with this testimony?

19 MR. STILL: Yes, Judge.

20 **VOIR DIRE EXAMINATION**

21 **BY MR. STILL:**

22 Q. Dr. Guale, is it possible for someone to  
23 develop a tolerance to alcohol without them being a  
24 chronic alcoholic?

25 A. That would be really hard to say. That's the

1 given -- and the matter is you cannot develop tolerance  
2 for things that you don't take every time. So for me,  
3 it is impossible to develop tolerance if you are not  
4 doing it chronically.

5 MR. STILL: Okay.

6 THE COURT: Do you have any evidence that  
7 this Defendant was chronically an alcoholic?

8 THE WITNESS: No, I am just talking the  
9 science. That's all.

10 THE COURT: Objection is sustained.

11 Next question?

12 Are we ready to move forward with  
13 something else in front of the jury?

14 MR. STILL: I believe so, Judge.

15 THE COURT: Let's have the jury.

16 MR. SHELLIST: Can I have some sort of  
17 instruction to disregard the last statement about that  
18 issue?

19 MR. STILL: Judge, I would like to make  
20 mention of tolerance, not in the context of Dr. Guale's  
21 testimony, but in my closing. I would like to make  
22 mention of tolerance just as if it is an everyday  
23 phenomenon.

24 THE COURT: You can draw reasonable  
25 inferences from that, that's fine.

1 MR. STILL: Thank you, Judge.

2 THE BAILIFF: All rise.

3 (Open court, Defendant and jury present)

4 THE COURT: Thank you. Please be seated.

5 I sustained the objection of counsel and

6 I am going to instruct the jury to disregard the

7 singular comment made by this witness concerning the

8 subject of tolerance. Okay.

9 Next question.

10 **DIRECT EXAMINATION**

11 **CONT'D BY MR. STILL:**

12 Q. Dr. Guale, taking into account the Judge's  
13 ruling, is it possible for someone to be intoxicated  
14 according to the law and yet not display those outward  
15 signs?

16 A. Yes, it is possible.

17 Q. I want to give you a hypothetical set of facts.  
18 Let me start with this: Are you familiar with the  
19 effects of alcohol on the human body?

20 A. Yes.

21 Q. I think I asked you that. I'm sorry. How much  
22 does an average person's blood alcohol concentration  
23 increase after one standard drink?

24 A. 0.02.

25 Q. Okay. And this is just an average person,

1 right?

2 A. Yes.

3 Q. So let me give you a hypothetical set of facts.  
4 Let's suppose that someone is driving at 2:10 in the  
5 morning and that they had their blood drawn at 3:31 in  
6 the morning.

7 Is it possible to consume enough alcohol  
8 such that the person was below a 0.08 at the time of  
9 driving and yet at 0.18 at the time their blood was  
10 drawn?

11 A. To have the blood alcohol level at a 0.18  
12 within an hour and 20 minutes?

13 Q. Correct.

14 A. No.

15 Q. Can you explain why?

16 A. Because it takes about 30 minutes to absorb one  
17 standard drink, which is -- within 30 minutes if you are  
18 drinking one alcohol -- one standard drink, your blood  
19 level is going to be 0.02.

20 So for a person to get to a 0.18 level,  
21 at least they must have consumed about a minimum of 9  
22 drinks, minimum.

23 Q. Okay. And so if that person did not consume  
24 any alcohol between 2:10 and 3:31, you are confident in  
25 saying that the science would tell us that there is no

1 way that they were below a 0.08?

2 A. It is humanly impossible.

3 MR. STILL: Pass the witness.

4 THE COURT: You may cross-examine.

5 **CROSS-EXAMINATION**

6 **BY MR. SHELLIST:**

7 Q. Ma'am, I mean no disrespect by this, but did I  
8 understand correctly that your primary focus prior to  
9 doing this job was in the field of studying animals?

10 A. That was 25 years ago.

11 Q. Veterinary toxicology?

12 A. Yeah. That was 25 years ago.

13 Q. Okay.

14 A. After 25 years, I was doing toxicology.

15 Q. Okay. Let's go with what you were just talking  
16 about at the end, this 9 drinks.

17 A. Yes.

18 Q. What does 9 drinks mean? What were you  
19 suggesting?

20 A. To have the person that -- to have 0.18 level  
21 of alcohol, grams per deciliter in a person's system or  
22 grams per hundred mL, yes {sic}.

23 Q. So for a human to have 0.18 in their blood,  
24 they would need to have what?

25 A. About 9 drinks. That's a minimum.



1 Q. Are you -- you are a scientist, correct?

2 A. Yes.

3 Q. And you agree with me that a lot of what you  
4 are testifying to involves so many assumptions; would  
5 you agree with that, "yes" or "no"?

6 A. I am not assuming. I am just basing my answer  
7 at 0.02 as a fact.

8 Q. But you are saying that a human would have to  
9 have 9 drinks to be 0.18. What human are you referring  
10 to? Are you referring to every single human or could it  
11 be different among the different humans?

12 A. An average.

13 Q. So you are making assumptions?

14 A. Yeah. Okay. Well, if you are talking about  
15 having different people and we call it an average  
16 person, and average -- and if you think that's an  
17 assumption, well, okay. That's what you call it, an  
18 assumption.

19 Q. So is it your testimony that you are giving  
20 this jury everything that you know based upon the  
21 average person?

22 A. When I say 0.02, yes, it is average.

23 Q. So tell me, what do you know about this young  
24 lady over here? Do you know anything about her?

25 A. I don't.

1 Q. Did you -- prior to testifying today, did you  
2 review the police report?

3 A. No.

4 Q. Did you review the video?

5 A. No.

6 Q. Now, you know about pharmacology, correct?

7 A. Correct.

8 Q. And you know about the effects of alcohol on  
9 the human body, correct?

10 A. Correct.

11 Q. And don't you think if you had studied the  
12 offense report, looked at the videotape, and talked to  
13 the officer and learned a little bit, maybe more about  
14 that evening, that would have helped you to give us more  
15 specific answers as opposed to answers about average  
16 people?

17 A. Could be true.

18 Q. So, let's just go with this hypothetical.

19 A. Okay.

20 Q. Someone is driving at 2:10, blood drawn at  
21 3:30. Let's assume no drinks have been had in the  
22 middle. Okay?

23 So 2:10 driving, 3:30 the blood is drawn.  
24 And let's just assume that the officer was not feeding  
25 them alcohol in between. Okay?

1       A.    Okay.

2       Q.    You are saying at this point in time the  
3 average person would have to have what, nine drinks in  
4 their body?

5       A.    At that point in time what I have for a fact is  
6 a 0.18 grams per deciliter of alcohol in that person's  
7 system. So I am just taking that as a reference point.  
8 And say to get to that level, a person -- an average  
9 person -- would have had to have -- consume a minimum of  
10 nine drinks.

11      Q.    Over what period of time?

12      A.    It could be four hours or five hours.

13      Q.    Really?

14      A.    Yeah.

15      Q.    Okay. So are you telling me then if this is a  
16 curve for alcohol -- you would agree with me we have  
17 absorption, right?

18      A.    Correct.

19      Q.    And you have elimination, right?

20      A.    Yes.

21      Q.    And do you know anything about how her body  
22 absorbs alcohol?

23      A.    I can make an assumption. Yeah, it is  
24 different, different people.

25      Q.    Okay. Right. Some people absorb quickly and

1 some absorb slowly?

2 A. Correct.

3 Q. And that's also dependant upon -- you don't  
4 know what they had to eat?

5 A. Yes.

6 Q. Whether they are on, like, a low-carb diet,  
7 that could effect it, right?

8 A. Could be.

9 Q. Do you have any information of what she had to  
10 eat?

11 A. No.

12 Q. Would you agree with me that as a police  
13 officer investigating a DWI, it is extremely important  
14 to ask someone what did you eat and when you ate?

15 MR. STILL: Objection to argumentative.

16 THE COURT: Sustained.

17 Rephrase.

18 Q. (BY MR. SHELLIST) Do you agree that that's  
19 important?

20 A. For the purpose of determining whether they  
21 absorb it slowly or fast --

22 Q. Yes.

23 A. -- that would give more information.

24 Q. Right. Do you think it would be important for  
25 an officer -- do you think it would be important for an

1 officer to ask someone, "Hey, when was your first drink  
2 and when was your last drink?

3 A. It would have been good.

4 Q. Why is that important?

5 A. Because you can draw exactly what you draw for  
6 that specific person {sic}.

7 Q. Right.

8 A. If you knew when the first drink and the last  
9 drink was.

10 Q. Right.

11 A. So I -- if you can tell me that, I can draw  
12 that for you, but I don't have that information.

13 Q. Right. And it is also important to know what  
14 type of drink?

15 A. Correct. But right now the type of drink would  
16 be beneficial if you don't know what the name is, but  
17 really it doesn't matter what type of drink it is.

18 Q. So the 9 drinks. Okay. How many drinks would  
19 someone that is 105 pounds or 110 -- I don't know what  
20 it is. How many drinks would someone have to have in  
21 their body to be at a 0.18; can you answer that?

22 A. Yeah, I would have to make some calculations,  
23 but, again, I have to assume. The smaller the person,  
24 the less that it takes to get to that level. The bigger  
25 the person, the more it takes to get to that level.

1           Q.   Understood. Understood. But 9 drinks, you  
2 would agree with me 9 standard drinks, that's a lot of  
3 alcohol, right?

4           A.   9 standard drinks, right, yes, it is a lot.

5           Q.   It's a lot. And you know that alcohol affects  
6 lots of parts of the body, correct?

7           A.   First, it just affects your brain and then your  
8 brain functions would dictate, you know, what kind of  
9 functions that you are going to show.

10          Q.   So the first thing that it affects is your  
11 brain?

12          A.   Yes.

13          Q.   Okay. So would we expect then to see a decline  
14 in someone's ability to control the normal use of their  
15 mental faculties on the average person who is  
16 intoxicated?

17          A.   Yes.

18          Q.   That would be the first thing. And then  
19 followed by a loss of their physical faculties, correct?

20          A.   Correct.

21          Q.   And their physical faculties, for example, are  
22 slurred speech; is that one of the physical faculties  
23 that we often see in people that are intoxicated?

24          A.   Yes.

25          Q.   Is it one of the first things to go on a lot of



1 people?

2 A. It is different for different people.

3 Different people do have different kind of outward  
4 behavioral impairments. So for some people, slurred  
5 speech. Some people may get slurred speech even at a  
6 0.04, but some people --

7 Q. Some people don't?

8 A. -- may not -- may not get to slurred speech  
9 even when they have 0.18.

10 Q. Okay. And the reason this is important, would  
11 you agree, is because we are trying to keep people who  
12 have lost the normal use of their mental faculties and  
13 physical faculties from driving a car, right?

14 A. Yes.

15 Q. Because driving a car is a very different  
16 complex task?

17 A. Yes.

18 Q. It requires divided attention?

19 A. Yes.

20 Q. So it is very common to see in intoxicated  
21 drivers they have difficulty controlling their vehicles,  
22 correct?

23 A. Correct.

24 Q. Let me ask you this last question. Without  
25 making any assumptions, none, can you tell this jury

1 what she would have been at 2:10 a.m., without making a  
2 single assumption?

3 A. I don't know.

4 MR. SHELLIST: Pass the witness.

5 MR. STILL: I have nothing further from  
6 this witness.

7 THE COURT: May this witness be excused?

8 MR. SHELLIST: Yes, Your Honor.

9 MR. STILL: Yes, Judge.

10 THE COURT: Thank you, ma'am.

11 Mr. Still?

12 MR. STILL: State rests.

13 THE COURT: Mr. Shellist?

14 MR. SHELLIST: I have to make my motion,  
15 but after that I'll be ready to rest, Judge.

16 THE COURT: Let's excuse the jury.

17 THE BAILIFF: All rise.

18 (Open court, Defendant present, no jury)

19 MOTIONS HEARING

20 MR. SHELLIST: I don't know if I have to  
21 do this, Judge, but, I guess I would renew my earlier  
22 motions to see if the Court has changed its mind with  
23 respect to probable cause for the warrant or probable  
24 cause in general for the arrest.

25 THE COURT: No. Same rulings.

1 CAUSE NO. 2024734  
2 STATE OF TEXAS ) IN THE IMPACT COURT  
3 vs. )  
4 JOSE LUIS DELACRUZ ) HARRIS COUNTY, TEXAS  
5  
6

7 **MOTION TO SUPPRESS HEARING**

8 July 19, 2016  
9

10 On the 19th day of July, 2016, the following  
11 proceedings came on to be held in the above-titled and  
12 numbered cause before the Honorable Judge Linda Garcia,  
13 Judge Presiding, held in the County Criminal Court at  
14 Law No. 16 of Harris County, 1201 Franklin Street,  
15 Houston, Texas 77002.

16 Proceedings reported by computerized stenotype  
17 machine.  
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1 THE COURT: We're outside the presence  
2 of the jury. I understand based on -- Mr. Fletcher  
3 wants to make a motion to suppress?

4 MR. FLETCHER: Yes, your Honor.

5 At this moment, the Defense would move  
6 to suppress the blood in this case.

7 THE COURT: Okay. And do you have any  
8 witnesses on that motion?

9 MR. FLETCHER: We would call Dr.  
10 Fessessework Guale.

11 DR. FESSESSEWORK GUALE,  
12 having been first duly sworn, testified as follows:

13 DIRECT EXAMINATION

14 BY MR. FLETCHER:

15 Q. Good morning.

16 A. Good morning.

17 Q. Can you please state your name and spell your  
18 first and last name for the record.

19 A. Fessessework Guale, F-e-s-s-e-s-s-e-w-o-r-k; my  
20 last name is Guale, G-u-a-l-e.

21 Q. And how are you employed, Dr. Guale.

22 A. I am employed by the Harris County Institute of  
23 Forensic Sciences, in the toxicology section.

24 Q. And what is your job title in the toxicology  
25 section?

1       A.    I am the toxicology analytical operations  
2 manager.

3       Q.    So, it's part of your job responsibilities to  
4 oversee the testing of blood ethanol samples, right?

5       A.    Correct.

6       Q.    Okay. And your job is to make sure that the  
7 proper procedures were followed when a lab like yours is  
8 conducting blood ethanol testing, correct?

9       A.    Correct.

10      Q.    And you reviewed the -- the data in this case,  
11 correct?

12      A.    Correct. I don't have the case file. It's  
13 with the analyst, because you're supposed to go to  
14 testify first.

15      Q.    Sure. But you're responsible for supervising  
16 the data in this particular case, right?

17      A.    Correct.

18      Q.    Okay. And -- I just wanted to ask you a couple  
19 questions about -- you used a technique known as gas  
20 chromatography to analyze blood ethanol samples, right?

21      A.    Yes.

22      Q.    And basically, gas chromatography, or GC for  
23 short, is the science of separation, right?

24      A.    Correct.

25      Q.    What GC is, is you can analyze a sample for



1 volatile compounds and figure out what the  
2 concentrations of those compounds are in the blood,  
3 right?

4 A. Correct.

5 MS. KIMBROUGH: Your Honor, since his  
6 taking Dr. Guale as his witness, I just ask that he not  
7 lead her.

8 MR. FLETCHER: It's a motion to  
9 suppress.

10 THE COURT: It's overruled.

11 Q. (Mr. Fletcher) Basically what a GC does is you  
12 take a sample and it heats it up and runs it through a  
13 column which separates all the active volatiles and then  
14 they come out at the end and then you can tell what time  
15 they came out, right?

16 A. Correct.

17 Q. That's a real basic definition of what a GC  
18 does, right?

19 A. Correct.

20 Q. Okay. So, in your lab, you have what's known  
21 as standard operating procedures, right?

22 A. Correct.

23 Q. And those are written guidelines that dictate  
24 how blood ethanol samples are supposed to be run, right?

25 A. Correct.

1 Q. And people that work in your lab are guided by  
2 the SOP's, right?

3 A. Correct.

4 Q. And the SOP's dictate how the individual blood  
5 ethanol test is run in your lab, right?

6 A. Correct.

7 Q. And people are supposed to abide by the SOP's,  
8 right?

9 A. Correct.

10 Q. I mean, they're important enough to put into  
11 writing, right?

12 A. Correct.

13 Q. And the purpose of doing an SOP is to ensure  
14 that the science is accurate, right?

15 A. Correct.

16 Q. And another purpose is to assure that the  
17 science is reliable, right?

18 A. Correct.

19 Q. So, if you follow the guidelines sponsored by  
20 your lab, then you can come in here and say this is a  
21 valid sample, right?

22 A. Correct.

23 Q. Now, according to your SOP, when a person does  
24 a blood ethanol analysis, they have to do certain things  
25 before they can say that it's an accurate result, right?

1 A. They follow procedures.

2 Q. They follow the procedures --

3 A. Yes, sir.

4 Q. And those are things like sample preparation,  
5 right?

6 A. Yes.

7 Q. And making sure that the critical parameters of  
8 the machine are accurate, right?

9 A. Yes.

10 Q. And you have to do a whole bunch of checks and  
11 sequences before the machine is even ready to start  
12 doing a run, right?

13 A. Correct.

14 Q. And according to your SOP's one of those  
15 requirements is that the analysts run what's known as a  
16 calibration curve before each sequence, right?

17 A. Yes.

18 Q. Your own SOP's require that a calibration curve  
19 be conducted each time a blood analysis is done, right?

20 A. Right.

21 Q. And if a person were not to run a calibration  
22 curve, then that could be a big problem, right?

23 A. Without a calibration curve, you can't -- you  
24 can't come up with a number.

25 Q. Right.

1       A.    So, it's important that you have a calibration  
2 curve.

3       Q.    Because you have to -- basically, what the  
4 calibration curve is, for the Court's understanding, is  
5 you run a series of concentrations of ethanol through  
6 known standards in the machine and make sure that they  
7 come out at what you know them to be, right?

8       A.    Correct.

9       Q.    And there are a total of six points of  
10 calibration on the GC machine in your lab, right?

11      A.    Correct.

12      Q.    Okay. And you are required to -- the lab is  
13 supposed to print off each of the chromatograms for each  
14 point on the calibration curve, right?

15      A.    Correct.

16      Q.    And that way, you can tell whether or not  
17 what's being reported on the curve is accurate as to  
18 what came out on the chromatogram, right?

19      A.    Correct.

20      Q.    I'm going to show you what has been previously  
21 marked as Defendant's Exhibit 2.

22                   Do you recognize what this is,  
23 Dr. Guale?

24      A.    Yes. This is the calibration curve.

25      Q.    That's the calibration curve for the sample in

1 this case, right?

2 A. Correct.

3 Q. And that was provided by your lab to me through  
4 the Court's discovery order, correct?

5 A. Yeah.

6 Q. Okay. And as far as you know, is anything --  
7 is this a fair and accurate copy of the calibration  
8 curve that was done in this case?

9 A. If you can give me the data that's associated  
10 with it, because the dates maybe different.

11 Q. Sure. Okay. Let's do that.

12 Oh, and I forgot to ask: It's your  
13 standard operating guideline that you report the -- the  
14 concentration of ethanol to a third decimal place,  
15 right?

16 A. We changed it, yeah.

17 Q. Right. You report three, right?

18 A. Yeah.

19 Q. Because the machine will truncate it after  
20 three, so, you don't -- you don't round down after  
21 three, right?

22 A. No.

23 Q. But you do report three decimal places, right?

24 A. Yes. It used to be only two; but now, we are  
25 doing it three.



1 Q. Right. But according to your current SOP,  
2 you're reporting three.

3 A. Correct.

4 Q. All right. I'm going to show you what has been  
5 marked as Defendant's Exhibit 3.

6 Can you tell me, Dr. Guale, what this  
7 is?

8 A. This is a data that was generated from a .025  
9 standard --

10 Q. Uh-huh.

11 A. -- which is actually right here.

12 Q. Okay. And that chromatogram that you have,  
13 Defendant's Exhibit 3, that's a chromatogram that's  
14 associated with the calibration curve, Defendant's  
15 Exhibit 2, right?

16 A. Correct.

17 Q. Okay. I'm going to show you what's been marked  
18 as Defendant's Exhibit 4.

19 Can you please tell the Court what  
20 Defendant's Exhibit 4 is?

21 A. It is a .050 standard, which is right here.

22 Q. Okay. And that chromatogram corresponds to the  
23 calibration that we're talking about, right?

24 A. Yes.

25 Q. Okay. I'm going to show you what's been marked



1 as Defendant's Exhibit 5. And this one's two sided.

2 Can you -- do you recognize what this  
3 is, Dr. Guale?

4 A. This is the .2 standard, which is right here.

5 Q. And that chromatogram is associated with the  
6 calibration curve on Defendant's Exhibit 2, correct?

7 A. Yes.

8 Q. Okay. And on the other side of Defendant's  
9 Exhibit 5, can you tell the Court what this is, please?

10 A. This is a .3 standard.

11 Q. Same question: That's associated with the  
12 calibration curve that we're talking about, right?

13 A. Yes.

14 Q. Okay. Last one. I'm showing you what's been  
15 marked as Defendant's Exhibit 6.

16 Can you please tell the Court what that  
17 is, Dr. Guale?

18 A. This is the .4 standard. And that's here.

19 Q. And that's also associated with the calibration  
20 curve, right?

21 A. Yes.

22 Q. Now, I want to ask you to -- for the Court's  
23 understanding, read off the calculated result for the  
24 .025 calibrator, please.

25 A. The .025?

1 Q. Right. What is the reported or the calculated  
2 grams per deciliter?

3 A. .025.

4 Q. Okay. And what is the calculated report on the  
5 chromatogram for that calibrator?

6 A. .024.

7 Q. Okay. Same thing with this Defendant's  
8 Exhibit 4: Can you tell the Judge what the reported or  
9 the calculated grams per deciliter is on the  
10 calibration?

11 A. .049.

12 Q. And what was the calculated value on the  
13 chromatogram associated with that?

14 A. .049.

15 Q. Okay. On Defendant's Exhibit 5, can you tell  
16 the Judge what the calculated grams per deciliter was on  
17 the calibration curve?

18 A. .198.

19 Q. Okay. And what is the calibrated value on the  
20 chromatogram?

21 A. .199.

22 THE COURT: I'm sorry, what's that  
23 number?

24 MR. FLETCHER: .199.

25 THE COURT: .199?

1 THE WITNESS: Yes.

2 THE COURT: And the first number was?

3 MR. FLETCHER: .198, Judge.

4 THE COURT: Thank you.

5 Q. (Mr. Fletcher) And can you tell Judge what the  
6 calculated grams per deciliter was for the .03 standard  
7 on the calibration curve?

8 A. The .3 is written .3.

9 Q. .3. And what does the chromatogram say for  
10 that?

11 A. .302.

12 Q. Okay. And last one, can you tell the Judge  
13 what the calculated grams per deciliter was on the  
14 calibration curve for the .4 standard?

15 A. .402.

16 Q. Okay. And can you read what the calculated  
17 concentration was for the chromatogram?

18 A. .401.

19 Q. Okay. Thank you.

20 Dr. Guale, would you agree with me that  
21 four -- excuse me, five out of these six chromatograms  
22 associated with this calibration curve report different  
23 value than what it reported on the curve, yes or no?

24 A. You must have another printout in there that  
25 you did not show me.

1 MR. FLETCHER: Nonresponsive, your  
2 Honor.

3 Q. (Mr. Fletcher) Would you agree with me that  
4 what we just went through, five of the six chromatograms  
5 do not match what was reported in the calibration curve?

6 A. Correct.

7 Q. Okay. And if you were to discover a problem  
8 with a calibration curve, you wouldn't report the  
9 result, right? You wouldn't sponsor the result, if you  
10 weren't sure that the calibration curve was done  
11 properly?

12 A. If those two numbers don't match, no.

13 Q. If they don't match, then you can't sponsor the  
14 result, right?

15 A. No. But I'm assuring you, there's another one  
16 included in there which matches.

17 Q. Do you have that with you?

18 A. No. You have it in your discovery.

19 MR. FLETCHER: I'll pass the witness,  
20 your Honor.

21 THE COURT: Ms. Kimbrough?

22 MS. KIMBROUGH: Brief re-direct, your  
23 Honor.

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**CROSS-EXAMINATION**

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MS. KIMBROUGH: Can I have those exhibits.

MR. FLETCHER: Sure.

Q. (Ms. Kimbrough) So, the differences in the numbers that we just talked about, do they indicate that the calibration on the instrument used in this case was done incorrectly?

A. Repeat your question again.

Q. Do the differences in those values that we just talked about indicate that the calibration that was done on this instrument used in this case was done incorrectly?

A. No.

Q. What does it indicate?

A. That indicates there was another calibration curve that was included in the discovery order that wasn't given to me, that means -- usually, when you come in in the morning, you had an instrument that ran yesterday.

So, when you are running your new standards and the calibrators, those numbers come out based on what the calibrator yesterday was.

So, what you do is once that's printed out, you ask the instrument to give you the calibration



1 based on those calibration points that you run today.

2 So, you will have two printouts.

3 Q. Okay.

4 A. So, that's -- what I saw was we have had this  
5 before, in several cases where by rules --

6 MR. FLETCHER: Object to relevance.

7 THE COURT: Sustained.

8 Q. (Ms. Kimbrough) So, you're saying that there's  
9 another document that you've provided to defense counsel  
10 that shows that the calibration was done correctly,  
11 right?

12 A. Correct.

13 Q. And you asked and he refused to give it to you  
14 on the stand, right?

15 MR. FLETCHER: Objection, your Honor,  
16 that's not what happened.

17 THE COURT: Sustained.

18 Q. (Ms. Kimbrough) Did you ask to see that  
19 document?

20 A. I indicated that this is not -- there is  
21 another document in there that included all the points,  
22 the right points in the calibrator.

23 Q. Okay. And you stated earlier that you didn't  
24 bring a case file with you on this case?

25 A. No. It's with the analyst.

1 Q. Okay. And if the analyst were to arrive here  
2 in a couple of minutes with those documents, would you  
3 be able to find and refer to the document that you're  
4 speaking of that shows that the calibration of the  
5 instrument used in this case was done correctly?

6 A. In the -- we don't have those in the case  
7 folder, but they're in the discovery order. They're  
8 included in there.

9 Q. I'm handing you what's been previously marked  
10 as State's Exhibit 20.

11 Do you recognize this?

12 A. Yes.

13 Q. What is it?

14 A. It's a laboratory result on the laboratory  
15 analysis performed on Jose Luis Delacruz.

16 Q. And who is the expert reviewer listed on the  
17 bottom of that lab result?

18 A. It is Fessesessework Guale. It would be me.

19 Q. Okay. And does your signature appear on it?

20 A. Yes.

21 Q. Can you tell me what your signature signifies  
22 on this document?

23 A. That means I am the expert reviewer. I looked  
24 at the whole case and I attested that the result is  
25 reliable. That's why I signed. My signature means this



1 is correct and reliable result.

2 Q. Okay. And in coming to that conclusion, would  
3 you have reviewed all the documents associated with the  
4 maintenance and calibration of this particular  
5 instrument?

6 A. That person would be Glenda Thomas. She is a  
7 technical reviewer. She reviews everything that's  
8 associated -- any data associated with this work, would  
9 be reviewed, the chain of custody and everything; and  
10 then she would put her signature here.

11 All the other data is correct. And the  
12 testing was performed and conducted according to the  
13 standard operating procedure.

14 Q. Okay. So, what do you look at to affix your  
15 signature on it?

16 A. I have to look at the data in the case folder.

17 The data in the case folder, there's a  
18 submission paper in there where; who submitted the  
19 samples, who signed it, and it was picked up by a  
20 person. I have to make sure this is the exact sample  
21 that was received, and I have to make sure -- I have to  
22 look at the chromatographic data and make sure that  
23 number that was on the chromatogram is actually here and  
24 that the units are correct.

25 Q. Okay.

1       A.    And that's pretty much it.

2                   I want to make sure that we have  
3 rules -- if the alcohol is for instance, less than .1,  
4 then I would have to send that for drug analysis. And  
5 all those are taken care of. This is greater than .1;  
6 so, it's good to go.

7       Q.    So, based on your review of the records in this  
8 case, did you by signing that certify that the lab  
9 result in this case is reliable and performed subject to  
10 the protocol set out in your SOP's?

11       A.    Yes.

12       Q.    And based on the documents that have been  
13 placed in front of you by defense counsel today, does  
14 that alter your opinion regarding whether or not the lab  
15 results in this lab in this case are reliable?

16       A.    No, it doesn't. I'm aware of what's included  
17 in this lab result.

18                   MS. KIMBROUGH: Pass the witness.

19                   THE COURT: Anything further,  
20 Mr. Fletcher?

21                   MR. FLETCHER: Just briefly, your Honor.

22                   **REDIRECT EXAMINATION**

23 BY MR. FLETCHER:

24       Q.    Dr. Guale, earlier, you and I agreed that the  
25 chromatograms that I showed you were associated with the

1 calibration curve that I also showed you, right?

2                   Those are the same chromatograms used to  
3 create that same calibration curve, yes or no?

4       A.     No.

5       Q.     They're not?

6       A.     They're not.

7       Q.     Even though you testified earlier that they  
8 were. You're changing it now?

9       A.     No, I'm not changing it. I'm telling you that  
10 the one that you showed me, the curve says 6/22. I'm  
11 trying to associate those with that, but I'm aware of  
12 what's going on in the lab in the same day. So, you  
13 have two printouts. So, show me the other one.

14                   MR. FLETCHER: Objection, your Honor,  
15 improper burden shifting.

16                   THE COURT: Sustained.

17       Q.     (Mr. Fletcher) Dr. Guale, I'm going to do this  
18 one more time.

19                   This is the calibration curve you  
20 testified earlier associated with this case, correct?

21       A.     I'm telling you --

22       Q.     What is the date?

23       A.     -- there is another one.

24       Q.     What is the date on this calibration curve?

25       A.     It's 6/22.

1 Q. Okay. And what is the date on this  
2 chromatogram?

3 A. 6/22.

4 Q. Okay. And what is the date on this  
5 chromatogram?

6 A. 6/22.

7 Q. And what is the date on this chromatogram?

8 A. 6/22.

9 Q. Same thing with the other side, what's date on  
10 that?

11 A. 6/22.

12 Q. And finally, that one. What's the date on  
13 that?

14 A. 6/22.

15 Q. Okay. So, it's fair to say that this  
16 calibration curve in these chromatograms were done on  
17 the same day, correct?

18 A. They're done on the same day, but there is  
19 another printout.

20 Q. You don't have that with you, do you?

21 A. No, I don't; but you have it.

22 Q. And you don't have any of the chromatograms  
23 associated with the report calculated concentrations on  
24 this curve, do you (indicating)?

25 A. I don't.

1 Q. I have that. I just showed them to you, right?

2 A. There is another one because I know what's  
3 included in the discovery order.

4 Q. You agreed with me earlier that these  
5 chromatograms are the ones that are associated with this  
6 calibration curve, isn't that correct?

7 A. Now I see they're not.

8 Q. Okay. But you testified earlier that they  
9 were.

10 A. Because I didn't know where you were going. I  
11 didn't know you were hiding some documents --

12 MR. FLETCHER: Objection, your Honor  
13 nonresponsive.

14 THE COURT: Sustained.

15 Actually, that's overruled. I think it  
16 is responsive. But it doesn't matter. It's to the  
17 Court.

18 Q. (Mr. Fletcher) And one last time, Dr. Guale,  
19 if you found out that there was a problem with the  
20 calibration curve on any given sequence, then you would  
21 not sponsor the result, isn't that correct?

22 A. Correct.

23 Q. Okay.

24 MR. FLETCHER: Pass the witness, your  
25 Honor.



**RECROSS-EXAMINATION**

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BY MS. KIMBROUGH:

Q. And are you aware of a calibration problem with this instrument?

A. There is no calibration problem. It is a process.

Q. When you have --

A. And we have two printouts. And one is based on a calibration that was done yesterday and the other one is based on that calibration points. But they're going to printout, both of them, the same date.

Q. So, I've just received in my hand the case file from the analyst.

Would the documentation in this file assist you in further asserting your certification that the lab result in this case was reliable and subject to proper protocols?

A. It was done based on the standard operating procedure and as a result is reliable.

Q. Would there be anything in the analyst's case file that would further help you to confirm that?

A. You can give it to me. I can show you.  
(Reviewing).

Q. Is it possible that there are documents on this disc that are not in hard copy on the file?



1       A.    Yeah.  All that document is, every data that's  
2 associated with this run.

3       Q.    Okay.

4       A.    This case folder is only the result and is a  
5 submission.

6       Q.    Okay.

7       A.    So, the only thing is, you know, there is a  
8 date and the time that the sample was run and the date  
9 that, you know --

10      Q.    So, there's no hard copy calibration records in  
11 this case?

12      A.    No.

13      Q.    Would there be on this disc?

14      A.    Yes.

15                   MS. KIMBROUGH:  Your Honor, may we have  
16 a brief recess to pop this in so that she can tell me  
17 what document she's referring to so that we can provide  
18 that to the Court?

19                   THE COURT:  Sure.

20                   (Recess taken)

21                   THE COURT:  We're back on the record.

22 BY MS. KIMBROUGH:

23      Q.    While we were on recess, did you have the  
24 ability --

25                   While we were on the break, you were

1 about to review the entire case file associated with  
2 this lab; is that correct?

3 A. Correct.

4 Q. And while we were reviewing that, did you come  
5 across any documents that you found would be helpful to  
6 your determination specifically whether the calibration  
7 of this instrument was done properly?

8 A. Correct.

9 Q. What documents generally did you come across?

10 A. I came across the document that I asked the  
11 defense counsel to give to me, and it's right there.

12 Q. Okay. And specifically, this is 13 pages of  
13 documents that were, amongst several other documents,  
14 provided to defense counsel at discovery; is that right?

15 A. Correct.

16 Q. By your office?

17 A. Correct.

18 Q. And so, I'm about to come up and hand you  
19 State's Exhibit 23 through 38; and I'm just going to ask  
20 you -- can you tell me what State's Exhibit 23 through  
21 38 are?

22 A. This is a calibration curve, which have the  
23 same June 11 date, and all the associated chromatograms  
24 generated using that curve.

25 Q. And the documents represented in State's 23

1 through 38, do they represent a complete rendering of  
2 the calibration protocols that were followed regarding  
3 the instrument that was used to test this blood in the  
4 case?

5 A. Correct.

6 Q. And if you've had time to review those while  
7 you're on the witness stand, can you state -- does the  
8 information in that document support your earlier  
9 conclusion that the blood results in this case were  
10 reliable and were reached after following the protocol  
11 set out in your standard operating procedure?

12 A. Correct.

13 Q. Okay. Is there a specific document in there  
14 that you would point to for that conclusion? If not,  
15 that's okay, but if there is one.

16 Is there a specific document that you  
17 were referring to that you didn't get on direct  
18 examination with defense counsel?

19 A. Yeah, these chromatograms.

20 Q. Okay. Which one specifically, in terms of  
21 exhibit number?

22 A. I have to see what he showed me before, because  
23 there are several of them.

24 Q. So, I'm also handing you Defense 2, 3, 4, 5,  
25 and 6.

1 A. Okay.

2 Q. Just kind of keep these with you.

3 So, is Defense 2 the same as State's 23?

4 A. This one goes with this.

5 Q. Oh, you've got to refer to them by exhibit  
6 number.

7 A. Okay. Twenty-three.

8 Q. State's 23.

9 A. And this one, which is 24 matches what's on  
10 the 23.

11 Q. So, just so we're clear, these are Defense  
12 Exhibits. 2, 3, 4, 5 and 6 with the blue sticker are  
13 Defense Exhibit. The ones with the white stickers are  
14 State's Exhibits.

15 So, you said State's Exhibit 23 is a  
16 duplicate of what in the Defense Exhibit?

17 A. Okay. I need to get -- this initial is KP.

18 Q. Okay. What's that initial?

19 A. That's the analyst's initial, which she's not  
20 here. And this one, under Salazar, 11/26. (Reviewing).

21 Okay.

22 Q. I guess what I'm trying to ask is: How do we  
23 ensure the Judge that we followed the standard operating  
24 procedures regarding this lab?

25 A. How do we ensure?

1 Q. Uh-uh.

2 A. All the documents are really here.

3 Q. And can you personally testify that the  
4 standard operating procedures were followed in this  
5 case?

6 A. Yes.

7 Q. And that's your testimony under oath?

8 A. Yes.

9 Q. Under the penalty of perjury?

10 A. Yes.

11 Q. Okay. And are you as the -- tell me what your  
12 full title is again.

13 A. Analytical operations manager.

14 Q. Okay. And -- what qualifications do you have  
15 to go through to hold that title?

16 A. Oh, I have almost 25 years of experience  
17 working in the lab, in toxicology lab, and I do have a  
18 managerial and supervisory experience, plus I do have a  
19 specialized training. I hold a master's degree in  
20 toxicology.

21 So, when you do specialized --

22 MR. FLETCHER: Your Honor, we'll  
23 stipulate for this hearing that the witness is an  
24 expert.

25 THE COURT: Okay.



Dr. Fessesessework Guale - July 19, 2016  
Further Redirect Examination by Mr. Fletcher

1 MS. KIMBROUGH: I was just trying to get  
2 through that the witness is qualified to make that  
3 determination that the standard operating procedures  
4 were followed in this case.

5 Is that what you're stipulating to?

6 MR. FLETCHER: Just that you don't have  
7 to build up her qualifications or anything.

8 MS. KIMBROUGH: Okay.

9 MR. FLETCHER: I stipulate for the  
10 purposes of this hearing that the witness is an expert.

11 MS. KIMBROUGH: Let me be clear so that  
12 I know I do not have to go further: You're stipulating  
13 that she's qualified to testify regarding the fact that  
14 the standard operating procedures were followed in this  
15 case?

16 THE COURT: Yes. Ms. Kimbrough, we've  
17 already agreed that she's an expert.

18 MS. KIMBROUGH: Sure.

19 Pass the witness, Judge.

20 **FURTHER REDIRECT EXAMINATION**

21 BY MR. FLETCHER:

22 Q. Dr. Guale, I'm going to ask you the same sort  
23 of exercise that we did before.

24 Can you tell me, please, on the  
25 calibration curve dated for June 11th, can you read to



1 the Court what the calculated result was for the .05  
2 calibrator?

3 THE COURT: But we've been through this  
4 before, Mr. Fletcher.

5 MR. FLETCHER: This is a different  
6 chromatogram.

7 THE COURT: It's a different  
8 chromatogram?

9 MR. FLETCHER: It's a different  
10 calibration curve.

11 THE COURT: For the 05?

12 MR. FLETCHER: For the 05.

13 Q. (Mr. Fletcher) Can you read out the calculated  
14 grams per deciliter for .05 calibrator?

15 A. .048.

16 Q. Okay. And can you read for the Court, the  
17 calculated amount on the chromatogram associated with  
18 that same calculator?

19 A. .047.

20 Q. And can you read for the Court, the reported  
21 value on the calibration curve for the .10 calibrator?

22 A. .1.

23 Q. And can you read for the Court, the  
24 corresponding chromatogram value?

25 A. .099.

1 Q. All right. And can you read for the Court, the  
2 calculated result on the calibration curve for the .03  
3 standard?

4 A. .298.

5 Q. And again, can you tell the Court what the  
6 calculated value on the chromatogram was?

7 A. .297.

8 Q. Okay. And last one, can you tell the Court  
9 what the reported value on the calibration curve was for  
10 the .04?

11 A. .402.

12 Q. And same thing, can you read the calculated  
13 value on the chromatogram?

14 A. .401.

15 Q. Okay. So, would you agree with me, Dr. Guale,  
16 that on four of the calibrations used for this  
17 calibration curve, the reported values are different  
18 than those that came out on the chromatogram, yes or no?

19 A. Correct.

20 MR. FLETCHER: Pass the witness, Judge.

21 THE COURT: Anything further,  
22 Ms. Kimbrough?

23 MS. KIMBROUGH: Nothing further, Judge.

24 THE COURT: I have a question, Doctor.

25 Dr. Guale, how closely do the

1 calculations have to match before you can rely on the  
2 results -- the testimony that Mr. Fletcher has elicited,  
3 is that enough of a difference to make a difference in  
4 the outcome of the sample?

5 A. No.

6 Sometimes, the numbers would get  
7 truncated and they show up in there.

8 THE COURT: Okay. Thank you.

9 Anything further for this witness from  
10 either side?

11 MR. FLETCHER: Just one question.

12 THE COURT: Okay.

13 **FURTHER REDIRECT EXAMINATION**

14 BY MR. FLETCHER:

15 Q. Dr. Guale, would you agree with me that the  
16 results that are reported on the chromatograms for both  
17 calibration curves, there are at least ten different  
18 values than what are reported in the chromatograms?

19 A. They are not ten different values.

20 Q. Okay. There were six, excuse me, five on the  
21 first one and four on the second one, correct?

22 A. Correct.

23 Q. Okay. So, we have nine reported values on the  
24 calibration curve that are different from what the  
25 chromatogram say, right?

1 A. Correct. And these are two different runs.

2 Q. Right. One is the initial and one is the  
3 confirmatory one.

4 A. One is the initial and the other one is the  
5 confirmatory one.

6 Q. But your SOP's call for running a calibration  
7 curve on either one, correct, before you start, right?

8 A. Yeah.

9 Q. Okay. And you don't have any chromatograms  
10 with you that show the reported values on the  
11 calibration curve for either one, right?

12 A. You mean with me?

13 Q. Yeah.

14 A. For the case or for the --

15 Q. For the calibration curve, you do not have with  
16 you chromatograms reflecting the report -- the values  
17 issued on the report, right?

18 A. Yeah. These are right here. Right now, we  
19 have them.

20 Q. But we just went through that there's nine  
21 different ones that you don't have chromatograms for?

22 A. They're not different.

23 Q. They're different than what was reported.

24 A. Just that the -- that's in the same  
25 chromatogram. You have it here. They're the numbers.

1 The third digit is -- the third decimal digit is  
2 different.  
3 Q. Right. And it's your lab's SOP to report to  
4 three digits, right?  
5 A. Correct.  
6 Q. Okay.  
7 MR. FLETCHER: Pass the witness, your  
8 Honor.  
9 MS. KIMBROUGH: Nothing further, Judge.  
10 THE COURT: Okay. You can step down,  
11 Dr. Guale.  
12 I'm going to deny the Defendant's motion  
13 to the suppress on the basis that I believe that the  
14 problems brought up in the motions go to the weight, not  
15 the admissibility of the evidence.  
16 Bring the jury back.  
17  
18  
19  
20  
21  
22  
23  
24  
25



1 THE COURT: Does anybody have anything  
2 we need to take up with the Court before we bring the  
3 jury back in.

4 MR. FLETCHER: Just that -- I forgot to  
5 mention this earlier -- during my motion to suppress for  
6 the blood, I intended to make the argument that the  
7 State haven't met their burden under *Kelly v. State*,  
8 specifically the third prong, based on the witnesses  
9 testimony; and I forgot to make that argument after you  
10 had made your rulings. I just wanted to get that on the  
11 record that that's what I intended to argue.

12 THE COURT: I'm glad you brought that  
13 up. Let's address that.

14 Because we had had the jury for quite a  
15 bit of time at the time, I didn't really give chances to  
16 argue that.

17 So, if you would like to say a few words  
18 about that motion at this time -- so, you're saying that  
19 they didn't meet their burden under *Kelly*?

20 MR. FLETCHER: Right.

21 The argument is, Judge, that the State  
22 is required to show by a clear and convincing evidence  
23 to the Court as the gate keeper under *Kelly v. State* for  
24 the proponent of any scientific evidence, and the State  
25 bears the burden of introducing the contested evidence;



1 specifically, the blood in this case.

2                   And the argument would be from the  
3 Defense is that the State's expert witness testified  
4 that the -- that it's very important to do a calibration  
5 curve before you do any sort of blood analysis and you  
6 have to follow the standard operating procedures.

7                   And if you don't, if you don't have a  
8 proper calibration, then the result can't be sponsored  
9 because we don't know if the machine was accurate or  
10 not. And in this specific case -- and I don't know how  
11 this happened, I'm not guessing one way or the other,  
12 but the fact is that the calibration curve, in my  
13 opinion, has some major issues with its -- specifically  
14 that the levels reported on the curve itself do not  
15 coincide with what was actually produced in the data, in  
16 the chromatograms.

17                   And we would argue that the State can't  
18 meet their burden under the third prong of Kelly because  
19 the calibration curve is inaccurate. What's reported  
20 was not what was actually conducted. And therefore, if  
21 the calibration curve is inaccurate, then the result  
22 itself is inaccurate; and therefore, the State can't  
23 meet their burden under Kelly.

24                   THE COURT: Thank you.

25                   Do you have any response?

1 MS. KIMBROUGH: Just to point out that  
2 Dr. Guale testified actually in response to a question  
3 by the Court that the variation between those numbers  
4 did not mean that the calibration was done incorrectly.

5 They were, at the most, you know, two  
6 thousands of a point different and she testified that  
7 she stood behind the reliability and accuracy of the  
8 lab. She's a duly qualified expert, as was stipulated  
9 to by counsel, and she also testified regarding the  
10 reliability of the lab itself as well as the underlying  
11 methodology under 702.

12 THE COURT: Okay.

13 So, your objections and your arguments  
14 now are noted for the record; and the motion is denied.

15 *(Proceedings Concluded)*  
16  
17  
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24  
25

1 STATE OF TEXAS  
2 COUNTY OF HARRIS

3 **REPORTER'S CERTIFICATE**  
4 **MOTION TO SUPPRESS HEARING**

5 July 19, 2016  
6

7 I, Mubarak Oladejo, Official Court Reporter in and  
8 for the County Criminal Court at Law No. 16 of Harris  
9 County, State of Texas, do hereby certify that the above  
10 and foregoing contains a true and correct transcription  
11 of all portions of evidence and other proceedings  
12 requested in writing by counsel for the parties to be  
13 included in this volume of the Reporter's Record in the  
14 above-styled and numbered cause, all of which occurred  
15 in open court or in chambers and were reported by me.

16 I further certify that the total cost for the  
17 preparation of this Reporter's Record is \$\_\_\_\_\_ and was  
18 paid/will be paid by \_\_\_\_\_.

19

20 /s/ Mubarak Oladejo  
21 Mubarak Oladejo, CSR  
22 Texas CSR 9224  
23 Official Court Reporter  
24 County Criminal Court  
25 At Law No. 16 of Harris County  
1201 Franklin Street  
Houston, Texas 77002  
Telephone: (713) 755-3575  
Expiration: 12/31/2018

Kimberly Peterson - August 19, 2016  
Recross-Examination by Mr. Flood

1 THE COURT: May this witness be excused?  
2 Any objections from the State?

3 MR. BATY: No objection from the State,  
4 Your Honor.

5 THE COURT: How about from the defense?

6 MR. FLOOD: No, ma'am.

7 THE COURT: Okay, ma'am. You are excused.  
8 Thank you for coming down.

9 State, call your next witness.

10 MR. BATY: State calls Dr. Fessesessework  
11 Guale to the stand.

12 THE BAILIFF: Your Honor, the doctor has  
13 not been sworn in yet.

14 THE COURT: Come up, ma'am. Good  
15 afternoon.

16 THE WITNESS: Good afternoon.

17 (Oath administered)

18 THE COURT: Thank you, ma'am. Come on up  
19 and have a seat. Keep your voice up.

20 You may proceed, sir.

21 MR. BATY: Thank you, Your Honor.  
22  
23  
24  
25

Fassessework Guale, DVM - August 19, 2016  
Direct Examination by Mr. Baty

1 FASSESEWORK GUALE, DVM

2 having been first duly sworn, testified as follows:

3 DIRECT EXAMINATION

4 BY MR. BATY:

5 Q. Good afternoon now, Dr. Guale. Could you state  
6 your name for the record?

7 A. Fassessework Guale, F-e-s-s-e-s-s-e-w-o-r-k  
8 G-u-a-l-e.

9 Q. Dr. Guale, how are you presently employed?

10 A. I'm employed by the Harris County Institute of  
11 Forensic Sciences as a toxicologist analyst,  
12 communications manager.

13 Q. How long have you been with the Harris County  
14 Institute of Forensic Sciences?

15 A. Ten years.

16 Q. How long have you been in your present role?

17 A. As a manager, probably since 2008, which is  
18 eight years.

19 Q. I want to talk specifically about some of the  
20 training and education that you've received. Let's  
21 start with your education. Do you have an undergraduate  
22 degree?

23 A. Yes.

24 Q. What is it in?

25 A. It's the Doctor of Veterinary Medical Degree

Fassessework Guale, DVM - August 19, 2016  
Direct Examination by Mr. Baty

1 that is -- I was a veterinarian, simply, and the other  
2 one is a post-graduate which is a Master's Degree in  
3 toxicology. I obtained that from Oklahoma State  
4 University.

5 Q. And do you have any specific training in --  
6 outside of your degrees in forensic toxicology?

7 A. Yes. Well, the training starts when you are  
8 doing your Master's Degree where you go and study in  
9 depth about drugs and alcohols and other chemicals and  
10 toxic chemicals and poisons and the toxic effects on the  
11 body and how the body responds and what happens to the  
12 drug and all of the processes that goes on under -- at a  
13 similar level. So, that's where you start your  
14 training.

15 And then during workforce, you know, when  
16 you are working in the laboratory, then you will be  
17 trained in the lab. And also we do have conferences and  
18 trainings that we go and get specialized training in  
19 regards to the subject we are dealing with.

20 Q. So, in addition to your training, have you had  
21 any occasion to conduct analysis on blood specimens?

22 A. Yes.

23 Q. If you could ball park it for us -- and I  
24 realize this number might be pretty high -- but how many  
25 times, would you say?



1       A.    Oh, I have been working in the lab since 1992,  
2    which is 24 years; and out of that eight years would be  
3    as -- on a bench, at a bench level and performing all,  
4    you know, extractions and maintaining instruments and  
5    reporting the data; and then after that, I go into more  
6    depth which is a technical review of the data and expert  
7    review of the data. So, at a given time, I may be  
8    involved -- at that time when I was doing, you know,  
9    bench -- at the bench level, I probably was doing about  
10   a hundred samples a month for different things. You  
11   know, it could be alcohol; it could be other things,  
12   other drugs, stuff like that.

13       Q.    A hundred samples a month?

14       A.    Yeah.

15       Q.    Twelve months a year, 1200 samples a year, 8  
16   years, call it 10,000 times. Would that be a fair  
17   assessment?

18       A.    Yeah.

19       Q.    Okay. And you stated that during your training  
20   you've studied the effects of alcohol on the human body,  
21   right?

22       A.    Yes.

23       Q.    Where did you learn how to examine the effects  
24   of alcohol on the human body?

25       A.    I can't tell you specifically when because even

Fassessework Guale, DVM - August 19, 2016  
Voir Dire Examination by Mr. Flood

1 when I was in a veterinarian medical -- as a  
2 veterinarian, as a candidate to become a veterinarian in  
3 the veterinarian medical school, you study toxicology  
4 and pharmacology of drugs. Even at an undergraduate  
5 level, you start studying those. When you study  
6 pharmacology, which comes from pharmacopeia which means  
7 drugs, you study about the chemical nature and the  
8 effects there in a classroom, even when I was an  
9 undergraduate student. So --

10 Q. Okay. Now that we understand and kind of your  
11 experience and your training, I want to focus  
12 specifically on the effects of alcohol on the body.

13 A. Okay.

14 Q. I want us to talk specifically about the  
15 concept of extrapolation, absorption, elimination.

16 MR. FLOOD: Your Honor, I'm going to  
17 object. May I have the opportunity to take this witness  
18 on voir dire on her qualifications to give this opinion?

19 THE COURT: Sure.

20 MR. FLOOD: Thank you.

21 **VOIR DIRE EXAMINATION**

22 **BY MR. FLOOD:**

23 Q. You stated that you are a Doctor of Veterinary  
24 Medicine?

25 A. Correct.

Fassessework Guale, DVM - August 19, 2016  
Voir Dire Examination by Mr. Flood

1 Q. And I heard the State ask you about what are  
2 your qualifications -- or what education you have about  
3 the effects of alcohol on the human body, right?

4 A. Yes.

5 Q. And you said, I can't really say when? Wasn't  
6 that your answer?

7 A. No. Because I started learning it even in  
8 undergraduate school. That's why I say specifically I  
9 cannot tell you when. But I can go back and just  
10 calculate when I was in undergraduate. I can do that.

11 Q. Did you learn about the effects of alcohol in a  
12 human body in your veterinary education?

13 A. Not specifically on a human body. At the  
14 similar level, what does alcohol do to the cells? We  
15 can, you know, differentiate between animals and humans  
16 in behavioral ways but at the cellular level. What  
17 happened to the drug is the same in animals and in  
18 humans. So --

19 Q. Okay. What specific training have you had on  
20 the effects of alcohol on the human body?

21 A. On the human body, it's when I get involved in  
22 forensic toxicology.

23 Q. Have you had any formal training, education --  
24 I'm sorry -- classroom, degree like your DVM degree? Do  
25 you have any of that formal training other than what

1 you've just kind of picked up after that in the lab on  
2 the effects of alcohol on the human body, formal  
3 training on that?

4 A. Formal training is when we go and do D.W.I.  
5 cases. That's my training. That's on a conference.

6 Q. Okay.

7 A. That's what it was.

8 MR. FLOOD: Your Honor, I would object,  
9 then, to this witness rendering an opinion on the  
10 effects of alcohol in the human body.

11 THE COURT: All right. We're going to  
12 take a short break because I have a couple of court  
13 matters that I need to address. So, if you will go back  
14 with the bailiffs for just a moment. And then your  
15 lunch is supposed to arrive at 1:00. So, hopefully we  
16 will have you come back in here for a few minutes more  
17 before your lunch arrives. So, if you will go with the  
18 bailiffs for a moment, please.

19 THE BAILIFF: All rise.

20 (Jury leaves courtroom)

21 THE COURT: Okay. Y'all may be seated.  
22 State, did you have anything on this  
23 objection that you wanted to address?

24 MR. BATY: Yes, Judge. Dr. Guale  
25 specifically testified that she has experience in

Fassessework Guale, DVM - August 19, 2016  
Cross-Examination by the Court

1 analysis of tissue and medicine, in pharmacology for an  
2 undergraduate, more after her doctorate and that the  
3 effects of drugs, alcohol, other things are the same on  
4 the human body as they are anywhere else, because they  
5 are all the same in the cellular level.

6 In addition to that, she has stated that  
7 she's experienced and has received training at various  
8 conferences and D.W.I. specific learning experiences to  
9 enable her to testify to the effects of alcohol in the  
10 human body. I don't know what more she could have  
11 besides -- I don't know what more she could have.

12 **CROSS-EXAMINATION**

13 **BY THE COURT:**

14 Q. First of all, I didn't hear -- I know you've  
15 got a Doctorate of Veterinary Medicine.

16 A. Yes.

17 Q. You don't have an additional Doctorate Degree,  
18 right?

19 A. No.

20 Q. Do you have a Ph.D.?

21 A. No.

22 Q. You have a Master's in toxicology?

23 A. Yes.

24 Q. Okay. I think you just misspoke on something,  
25 because I didn't hear you say that you took pharmacology

1 all the way up through your doctorate. You started an  
2 undergraduate --

3 A. And also a Master's.

4 Q. -- and your Master's?

5 A. Yes.

6 Q. Okay.

7 A. I have advanced pharmacology and toxicology  
8 training.

9 MR. BATY: All the way up through her  
10 doctorate?

11 THE WITNESS: All the way up to my  
12 Master's.

13 MR. BATY: I'm sorry, Your Honor. I  
14 misspoke. What did I say?

15 THE COURT: All the way up to her  
16 doctorate.

17 THE WITNESS: Yeah, Board --

18 Q. (BY THE COURT) Did you do undergrad, Master's  
19 and then Doctorate of Veterinary Medicine?

20 A. No. I consider the Doctorate of Veterinary  
21 Medicine as an undergrad.

22 Q. Okay.

23 A. That's why I say that's my undergrad. Also,  
24 before that, there was also animal science of study  
25 while I was in there. Then I did the veterinary medical



1 degree and then that's where you study about specific  
2 pharmacology and toxicology of drugs. Even though it is  
3 on animals, because I'm a veterinarian, to be applied on  
4 animals, the scientific basis at the same level is the  
5 same. What happens to the alcohol in there, what  
6 happens when it comes or the other drugs basically at  
7 the same level, it's the same thing.

8 THE COURT: Anything else?

9 MR. BATY: Nothing further.

10 THE COURT: You were going to say  
11 something?

12 VOIR DIRE EXAMINATION (CONT'D.)

13 BY MR. FLOOD:

14 Q. So, you got an undergraduate degree? It  
15 wouldn't be the equivalent of a medical DVM here.

16 A. It is equivalent.

17 Q. Where did you get it?

18 A. Huh?

19 Q. Where did you get it?

20 A. Ethiopia.

21 Q. So, it was an undergraduate degree?

22 A. Yes.

23 Q. So, when I asked you about your -- okay. The  
24 State said that you learned through all of these  
25 conferences and things. I didn't hear you say that. I

1 asked you about your formal training on the effects of  
2 alcohol in the human body.

3 And you said, Oh, I get that when we go  
4 out and do D.W.I. investigations, right?

5 A. Okay.

6 Q. Is that what you said?

7 A. We have to delineate what it means to learn  
8 about the effect of alcohol and drugs on a human body --

9 Q. Right.

10 A. -- or the effect of alcohol and drugs on  
11 animals, okay? If you had asked me that  
12 differentiation, I could have differentiated it for you;  
13 but I was going to tell you it's the same thing. You  
14 say it's human, you say it's -- but specifically on  
15 humans, though, applying that science on humans is when  
16 you are dealing with a D.W.I. case. That's where you  
17 are going to get it.

18 Q. But my question was: What was your formal  
19 training on the effects of alcohol on the human body?

20 A. There is no formal training on effects of  
21 alcohol on a human body.

22 Q. Okay.

23 A. It's either you get a degree in some subject or  
24 not. That's what's going to be translating into a  
25 formal training is courses or seminars like that. There

Fassessework Guale, DVM - August 19, 2016  
Voir Dire Examination (Cont'd.) by Mr. Flood

1 is no such degree. It doesn't exist.

2 Q. Well, but you can --

3 MR. FLOOD: Judge, my objection still  
4 remains that there are obviously qualifications that  
5 other people offer to state how they are qualified to  
6 testify and give an expert opinion of the effects of  
7 alcohol on the human body. And not just coming up here  
8 and trying to convince everybody that it's exactly the  
9 same as every animal out there, I --

10 THE WITNESS: But you are not going to  
11 find anyone else to do that.

12 MR. FLOOD: I disagree. I'm sorry.

13 THE WITNESS: Nobody can provide all these  
14 toxicologists that are coming and testifying -- they  
15 don't even have a medical knowledge anywhere.

16 THE COURT: Let's just stop right there,  
17 ma'am.

18 THE WITNESS: They just study pharmacology  
19 and toxicology.

20 THE COURT: Excuse me, ma'am.

21 THE WITNESS: Yes.

22 THE COURT: Anything else from the State?

23 MR. BATY: Yes, briefly, Your Honor.  
24  
25

**DIRECT EXAMINATION (CONT'D.)**

**BY MR. BATY:**

Q. Dr. Guale, have you ever been to any conferences regarding driving-while-intoxicated cases?

A. Yes. Correct, I have been.

Q. Have you received training at those conferences regarding toxication and toxicology?

A. Yes.

Q. What sorts of things did you study in your Master's of toxicology?

A. All of the drug effects on a similar level. It doesn't matter which body it is. It is going to be at a similar level, what happens and how it attacks -- what happens to the drug, once it gets in, how it metabolizes, how it's broken up by the cells, by the liver cells; and once it gets in your brain, where it attacks. There is no difference between animal or human. It's going to be the same chemical that it's going to affect; and it's going to be the same process, toxicology process, that would come out. Of course, animals are not going to show the behavior that humans show.

Q. So, at the conferences that you went to, did you receive specific training on the effects of alcohol in the human body?

1       A.    Correct, yes.

2       Q.    And is your testimony here today that during  
3 the course of your Master's Degree in toxicology, that  
4 you learned the effects of alcohol in animal tissue?

5       A.    General toxicology in animal tissue and human  
6 tissue, there is no difference. It is the general  
7 toxicology. It's the application of it. You learn the  
8 application of it when you are dealing with D.W.I.  
9 cases.

10      Q.    Thank you, Dr. Guale.

11               MR. BATY: No further questions, Your  
12 Honor. Pass the witness.

13              THE COURT: Okay. So, here will be my  
14 ruling, that your objection is overruled with regard to  
15 the effects of alcohol on the human body. But I  
16 anticipate, because of the question that you were asking  
17 when Mr. Flood asked if he could take the witness on  
18 voir dire, that you are going to go into the theory of  
19 absorption and elimination and extrapolation, which  
20 there hasn't been any testimony about whether she's  
21 qualified specifically with regard to those. Just  
22 saying.

23              Okay. We are going to take a short break  
24 so I can handle some court matters.

25              MR. FLOOD: I would have an objection on

1 that as well.

2 THE COURT: What is your objection?

3 MR. FLOOD: That she hasn't laid or  
4 articulated proper qualifications. Everything has been  
5 related to animals, so I --

6 THE COURT: All right. Let's take a short  
7 break so I can handle these couple of pleas.

8 MR. BATY: Your Honor, may we be heard on  
9 that before we --

10 THE COURT: I will give you a chance. I  
11 need to take care of Chris and Jane.

12 MR. BATY: Absolutely. Yes, ma'am.

13 (Recess taken)

14 (Jury not present)

15 THE COURT: All right. Luke, do you have  
16 your witness? Are you waiting on something?

17 MR. BATY: I didn't hear, Judge. What?

18 THE COURT: Is your witness available?

19 MR. BATY: She is, yes, Judge.

20 THE COURT: All right. The defense has  
21 made an objection that Dr. Guale is not qualified to  
22 testify on matters of extrapolation.

23 So, State, what's your response to that?

24 MR. BATY: Your Honor, I would just ask  
25 for a few more questions, lay some more predicate.



1 THE COURT: Go ahead.

2 MR. BATY: Thank you, Your Honor.

3 DIRECT EXAMINATION (CONT'D.)

4 BY MR. BATY:

5 Q. Dr. Guale, do you have any special  
6 certifications in forensic toxicology?

7 A. Yes.

8 Q. What certification do you have?

9 A. I have forensic toxicology specialist  
10 certification, obtained from the American Board of  
11 Forensic Toxicology.

12 Q. And in order to become Board certified in  
13 forensic toxicology, did you have to study the effects  
14 of alcohol particularly with regards to retrograde  
15 extrapolation, absorption, and elimination?

16 A. Correct. That absorption, elimination stuff is  
17 strictly common. You know, you have to know that -- you  
18 know, to have a degree.

19 Q. Do you have to know that to become Board  
20 certified?

21 A. Yes.

22 Q. What's the process to become Board certified by  
23 the -- in forensic toxicology?

24 A. You have the requirement of the degree and you  
25 have the requirement of several years of practical

Fassessework Guale, DVM - August 19, 2016  
Direct Examination (Cont'd.) by Mr. Baty

1 experience and trainings for three years and you also  
2 have to go through a rigorous study of the books and  
3 articles, everything that's out there in relation to  
4 that.

5 Q. Do you have to take any exams?

6 A. Yes.

7 Q. Do you have to pass those exams?

8 A. Yes.

9 Q. Do those exams test your ability to conduct  
10 retrograde extrapolation analysis?

11 A. Yes.

12 Q. Did you pass those exams to become Board  
13 certified?

14 A. Yes.

15 Q. And have you had any specialized training in  
16 retrograde extrapolation?

17 A. Yes.

18 Q. Where?

19 A. Locally at our facility.

20 Q. Who conducted that training for you?

21 A. A senior toxicologist.

22 Q. Was that training part of your process of  
23 maintaining your Board certification?

24 A. Yes. You have to have continuing education  
25 points that you have to obtain every year to keep your

1 certification.

2 Q. And are you currently at this moment certified  
3 by the Board of forensic toxicologists to -- are you a  
4 Board certified forensic toxicologist at this moment?

5 A. Yes.

6 MR. BATY: Pass the witness, Your Honor.

7 THE COURT: Mr. Flood.

8 MR. FLOOD: I just have one question.

9 VOIR DIRE EXAMINATION (CONT'D.)

10 BY MR. FLOOD:

11 Q. All of that training relates to humans?

12 A. Yes.

13 MR. FLOOD: I will pass the witness, Your  
14 Honor.

15 THE COURT: Mr. Baty.

16 MR. BATY: Your Honor, at this time I  
17 believe the witness has demonstrated that she is an  
18 expert, sufficient under the Rules in order to testify  
19 to retrograde extrapolation and the effects of alcohol  
20 on the human body and would request the Court to  
21 overrule the defense counsel's previous objection.

22 THE COURT: Mr. Flood, anything other than  
23 what you've already said?

24 MR. FLOOD: No, I have nothing else.

25 THE COURT: I'm going to allow her to

Fassessework Guale, DVM - August 19, 2016  
Direct Examination (Cont'd.) by Mr. Baty

1 testify, so I'm going to overrule your objection.

2 Renee, go get the jury, please, unless the  
3 pizza is out there.

4 MR. FLOOD: I'm sorry. What time are you  
5 doing lunch?

6 THE COURT: It's supposed to be at 1:00.

7 MR. FLOOD: I'm just curious.

8 THE COURT: Because you're hungry?

9 MR. FLOOD: A little bit.

10 THE COURT: Their food is supposed to be  
11 delivered at 1:00.

12 (Discussion off the record)

13 THE BAILIFF: All rise.

14 (Jury enters courtroom)

15 THE COURT: All right. Please be seated.

16 Mr. Baty, you may proceed.

17 MR. BATY: Thank you, Your Honor.

18 **DIRECT EXAMINATION (CONT'D.)**

19 **BY MR. BATY:**

20 Q. Now, doctor, where we left off before the jury  
21 went out, with your qualifications and experience, I  
22 want to shift our focus and talk specifically about the  
23 effects of alcohol in the human body. So, I want to  
24 start with the concept of extrapolation. What is  
25 retrograde extrapolation?

1       A.    Retrograde extrapolation is a mathematical  
2 deduction of the level of the alcohol from a known time.  
3 Like, for instance, if the alcohol level at a known  
4 time, like 12:00 o'clock, is .1; and you would want to  
5 know how much would it be two hours before, then there  
6 are scientific facts in numbers, you know, figures that  
7 you need to add and include to calculate what would it  
8 be two hours ago. That's called extrapolation.

9       Q.    So, explain to me what we would need in order  
10 to -- in order to take a known blood sample and a known  
11 quantity of alcohol of someone's blood and extrapolate  
12 it back a couple hours.

13       A.    In those -- in that process, as we all are  
14 different, we process drugs and alcohols differently.  
15 So a person's weight and height and sex may make a  
16 difference in some of the vitals that we are going to  
17 increase in the calculation. Like for instance how much  
18 you've eaten and drinking, that's going to affect the  
19 absorption or how fast the alcohol in your stomach will  
20 go through absorption. All of those informations --

21       Q.    Let's pause right there. You say "absorption".  
22 What does absorption mean?

23       A.    Absorption means as soon as you put the drug or  
24 the water or anything that you put through your mouth,  
25 it goes through your abdomen to retract -- or it goes

1 through your stomach, and then the stomach will churn  
2 it. Some absorption will take place there, but it will  
3 just move it to your intestine.

4 So, the alcohol, the majority of the  
5 alcohol, will be absorbed through your intestine because  
6 your intestine has got blood vessels surrounding to it.  
7 So, that's how by diffusion it will go through the blood  
8 and it goes through a circulation system and then it  
9 gets distributed. That's why it's called absorption.

10 Q. So what happens after the body absorbs alcohol?

11 A. Once it is absorbed, it circulates in your body  
12 and is distributed to all body parts. Alcohol has got a  
13 characteristic to go to where the water is, all the  
14 cells. Stuff that we have in our body have water. It  
15 goes to the water -- it prefers to go to the water in  
16 part more, you know, than the fatty part. So, you know,  
17 when it distributes, that also has a distribution  
18 factor.

19 For instance, if a person has -- the  
20 weight of that person, it comes from the fat or from the  
21 muscle. It makes a difference. So that's why weight is  
22 very important. Sex is very important. And it  
23 distributes through your body. It goes to your brain.  
24 That's where, you know, the effect -- the main effect of  
25 alcohol comes from because it goes to your brain. It

1 affects the central nervous system, and then the central  
2 nervous system affects your physical body. That's how  
3 your physical body is going to get affected.

4 Then once it goes there, it goes to the  
5 liver, and then it becomes metabolized or broken down  
6 and then gets emanated as water and carbon dioxide.

7 Q. So, are you able to say to a certainty how fast  
8 someone absorbs alcohol?

9 A. It's variable. It's all variable. Depends  
10 whether you have food with it or not or it depends  
11 whether -- you know, the type of alcohol, whether it's a  
12 liquor or alcohol or a medium-strength alcohol. That  
13 also has a factor. And so -- and some medical  
14 conditions also have factors. So, excluding the  
15 extremes which could be 50 minutes to hours, the average  
16 person would absorb alcohol within one hour. That's why  
17 we call "average".

18 Q. And once somebody has absorbed that alcohol  
19 within the average of one hour, are you able to then  
20 determine how fast somebody's eliminating alcohol?

21 A. Yes.

22 Q. And what would you need in order to determine  
23 how fast someone is eliminating alcohol? What kind of  
24 facts would you need?

25 A. Whether -- in the elimination, what matters



1 is -- there are certain conditions where the person is  
2 going to eliminate faster and certain conditions it  
3 would be normal. But there is always a constant rate.  
4 Your body processes a constant rate because there is a  
5 rate-limiting factor in a person where the enzyme  
6 involved in the elimination is constant. So, it doesn't  
7 vary from time to time. So, it's a constant  
8 elimination. We call it zero autokinetics. So, because  
9 alcohol has got that property, the elimination rate is  
10 established already because it's been studied over and  
11 over and over on individuals for putting themselves for  
12 experiments. So, based on that data collected,  
13 scientifically collected data, a person in average would  
14 eliminate a .015 gram of alcohol per hour. So, that's  
15 what we apply. But sometimes you could have a faster  
16 elimination rate, and sometimes you could have a slower  
17 elimination rate. So, that's why we take the average.

18 Q. So, Dr. Guale --

19 THE COURT: I'm sorry. I'm going to pause  
20 you because your food just got delivered. So, ladies  
21 and gentlemen, we are going to take a break for lunch.  
22 Remember the rules that I gave you yesterday. You are  
23 not to discuss the case yet.

24 Lawyers, let's try 45 minutes. Is that  
25 enough time for you?

1 MR. FLOOD: Sure.

2 MR. BATY: Yes, Your Honor. That's fine.

3 THE COURT: We are going to take a  
4 45-minute break, so we will resume at 1:45. Please go  
5 with the bailiff.

6 THE BAILIFF: All rise.

7 (Jury leaves courtroom)

8 THE COURT: Okay. I totally put you on  
9 the spot because you weren't going to disagree with me  
10 in front of the jury. Do you need an hour? Because you  
11 asked me about lunch, do you need an hour for some  
12 reason?

13 MR. FLOOD: No, no, that's okay. That's  
14 fine.

15 THE COURT: All right.

16 (Luncheon recess)

17 THE BAILIFF: All rise.

18 (Jury enters courtroom)

19 THE COURT: All right. Please be seated.

20 Mr. Baty, you may proceed.

21 MR. BATY: Thank you, Your Honor.

22 Q. (BY MR. BATY) Dr. Guale, I want to return.  
23 Before we broke we had some discussion about your  
24 education, your background. I just want to clarify a  
25 few things with you. You stated earlier that it's not

1 possible to obtain a degree in the effects of alcohol in  
2 the body, right?

3 A. Correct.

4 Q. Did you study that course of subject in the  
5 duration and in the larger scope of obtaining a degree  
6 in veterinary medicine, for example? Is that something  
7 you studied, the effects of alcohol?

8 A. Yes.

9 Q. Okay. And did you study the effects of alcohol  
10 in a larger course of study on pharmacology?

11 A. Yes.

12 Q. And in a large course of study on toxicology?

13 A. Yes.

14 Q. And you studied the effects of alcohol in a  
15 larger course of study on those -- the pharmacological,  
16 Intoxilological (sic) events and effects in the human  
17 body, correct?

18 A. Correct.

19 Q. Okay. Now, have you had any specific training  
20 with regards to retrograde extrapolation?

21 A. Yes.

22 Q. What training?

23 A. I'm sorry?

24 Q. What training?

25 A. Training by senior toxicologists where we are

Fassessework Guale, DVM - August 19, 2016  
Direct Examination (Cont'd.) by Mr. Baty

1 in the institute.

2 Q. Have you been to any conferences with regards  
3 to the investigation of driving-while-intoxicated cases?

4 A. Yes.

5 Q. In the course of those conferences, did you get  
6 any training on retrograde extrapolation?

7 A. Yes.

8 Q. And did you receive any training on the effects  
9 of alcohol in the human body?

10 A. Yes.

11 Q. Okay. I want to move back to what we were  
12 talking about before we broke. We had been mentioning  
13 retrograde extrapolation. You talked to us specifically  
14 about the way the body processes alcohol, both absorbing  
15 it and eliminating it.

16 A. Yes.

17 Q. Now, Dr. Guale, is it possible to determine  
18 what -- to take a known blood sample at a known time and  
19 retrograde extrapolate back to a previous time to  
20 determine how intoxicated or what the blood level, blood  
21 alcohol level, of somebody would have been prior to the  
22 test?

23 A. Yes.

24 Q. And what kind of factors would you need to know  
25 in order to do that?

1       A.    All the factors that affect the alcohol  
2 metabolism is, you know, the weight, the height, the  
3 age, the sex, whether the person ate or not ate or what  
4 kind of, you know, drink that the person had, whether it  
5 is a beer or liquor. The type of the drink also  
6 matters. Those are the factors that you need to have  
7 to --

8       Q.    What about how many drinks somebody had?

9       A.    How many drinks somebody had, if you want to do  
10 anterograde, that would be necessary. But if you want  
11 to do a retrograde, you don't really need that  
12 information.

13       Q.    What about the time of first stop or first  
14 drink?

15       A.    You need to have the first time of the drink,  
16 the last time of the drink, and the time of the incident  
17 in addition to those demographic information.

18       Q.    Okay. Let me pose a hypothetical situation to  
19 you. Suppose someone started drinking at 1800 hours, so  
20 6:00 o'clock in the evening.

21               Do you need something to write with?

22       A.    Yes, I have it.

23       Q.    Okay. So, suppose somebody started drinking at  
24 1800 hours, 6:00 o'clock in the evening.

25       A.    Okay.

1 Q. They drank eight beers.

2 A. Okay.

3 Q. They stopped drinking at 2215 hours, so 10:15  
4 in the evening.

5 A. Okay.

6 Q. And then they drove and were pulled over at  
7 2345 hours, so 11:45 in the evening.

8 A. Okay.

9 Q. A blood sample was taken from them at 0230  
10 hours, so 2:30 in the morning.

11 A. Okay.

12 Q. And that blood sample, the result of that blood  
13 test was .149. And assume this person is of average  
14 height, average weight, is a male, and that they  
15 absorbed at a normal, average weight which you said was  
16 an hour, correct?

17 A. Yes.

18 Q. Now, given all of those facts, would you be  
19 able to extrapolate a person's -- in that hypothetical  
20 situation, a person's blood alcohol level at the time  
21 that they were stopped for a traffic violation at 11:45?

22 A. Okay. In order to do the extrapolation, based  
23 on the facts or the hypothetical facts that I have here,  
24 one, I have to assume elimination. So, I also have to  
25 assume an average elimination rate for an average

1 person, which is -- we usually use 0.015 grams of  
2 alcohol per hour. And with that there is two hours and  
3 45 minutes between the blood draw where we exactly get  
4 the concentration of the blood alcohol which is .149  
5 back to 2345 which is a stop time. So, the interesting  
6 point that we are using is how much would it be at 2345,  
7 when the person was stopped?

8                   So, what I have to do is multiply the 2  
9 and -- 2.45 hours by .015 and add that, because we are  
10 eliminating -- he is reducing it so I have to add it  
11 back to the number and come up with a figure which comes  
12 to be -- which comes to be 0.190 grams of alcohol per  
13 hundred milliliters.

14       Q.   Zero --

15       A.   .19.

16       Q.   .19?

17       A.   Yes.

18       Q.   And if you know, what's the legal limit for  
19 driving in the State of Texas, your blood-alcohol level?

20       A.   0.08.

21       Q.   So, this 0.19 is over twice the legal limit,  
22 correct?

23       A.   Correct.

24       Q.   Now let me pose to you -- let me change the  
25 facts a little bit. Let's assume that the person in the



1 hypothetical situation is not the average person and  
2 absorbs a little slower for whatever reason.

3 Are you -- is it possible -- is it likely  
4 that giving the benefit of the doubt, that that person  
5 would be still above a .08 blood-alcohol level at the  
6 time of driving?

7 A. Yes.

8 Q. How likely is that?

9 MR. FLOOD: Objection. That calls for  
10 speculation.

11 THE COURT: Sustained.

12 Q. (BY MR. BATY) How unlikely would it be that  
13 they are below a .08?

14 MR. FLOOD: Objection. That calls for  
15 speculation.

16 THE COURT: Sustained.

17 MR. BATY: I pass the witness, Your Honor.

18 THE COURT: Mr. Flood.

19 MR. FLOOD: Thank you, Your Honor.

20 **CROSS-EXAMINATION**

21 **BY MR. FLOOD:**

22 Q. Dr. Guale, you're not a blood analyst, are you?

23 A. Huh?

24 Q. You are not a blood analyst, are you?

25 A. No, I don't do the analysis.

1 Q. Your degree was in Doctor of Veterinarian  
2 Medicine, correct?

3 A. Correct.

4 Q. But it was like in an undergraduate degree?

5 A. Yes.

6 Q. And you said that -- you said that you think  
7 that the effects of alcohol on animals is exactly the  
8 same as the effects of alcohol on humans?

9 A. The science of the serum level is the same.  
10 They don't respond in the same way. When they get  
11 drunk, we call them bonkers.

12 Q. It certainly wouldn't -- like a drunk dog would  
13 not be the same as a drunk human, right?

14 A. Yeah. The response is different. But at the  
15 serum level, how the alcohol goes to the brain and how  
16 the brain dictates what the effect of the body is --

17 Q. Okay. So, Doctrine of Veterinarian Medicine in  
18 the United States is like the equivalent of a medical  
19 doctor, same number of years of schooling and after  
20 college, right?

21 A. Correct.

22 Q. But your degree you received in undergraduate  
23 school, correct?

24 A. I consider it undergraduate because I did my  
25 Master's. That's why I consider it undergraduate.

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Cross-Examination by Mr. Flood

1 Other than that, actually the curriculum back home which  
2 is Ethiopia is six years. It's superior than what the  
3 curriculum here is.

4 Q. You got a Master's in Veterinarian Medicine?

5 A. No. I got a Master's in toxicology.

6 Q. So, the DVM, the Doctrine of Veterinary  
7 Medicine, was something that was not done in the United  
8 States?

9 A. That was in Ethiopia, where I came from.

10 Q. Okay. I would like to ask you a couple of  
11 questions about this absorption and elimination, okay?

12 A. Okay.

13 Q. You were talking a lot about averages and  
14 assuming things, right?

15 A. Uh-huh.

16 Q. But you don't know what this person's  
17 absorption and elimination rates would be like, right?

18 A. Not in particular to that person.

19 Q. Okay.

20 A. But there is an average that was established  
21 through experiments using different things.

22 Q. Right. And so everybody is different, though,  
23 right?

24 A. Correct.

25 Q. So, you don't know what his physical --

1 physiology of his body is like, right?

2 A. I just use what's given as a physiology of a  
3 human person, yeah.

4 Q. So the answer is, no, you don't know anything  
5 about this person in particular?

6 A. No.

7 Q. Okay. So, when you said that -- I mean, when  
8 people start drinking, they obviously start out at a  
9 zero, right, with no alcohol if they haven't had  
10 anything to drink?

11 A. Uh-huh.

12 Q. It's common misconception that people are  
13 always going to be at a higher B.A.C. at some point  
14 earlier in time, right? That's not always the case, is  
15 it? Right?

16 A. Depending on the facts.

17 Q. Right?

18 A. Depending on the facts.

19 Q. Right. They could be higher or lower or the  
20 same?

21 A. Could be.

22 Q. Right?

23 A. Uh-huh.

24 Q. I mean, at some point they are going to be  
25 rising, right?

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Cross-Examination by Mr. Flood

1 A. It depends on if they are drinking more and  
2 more and more and they would be going up.

3 Q. I guess I'm not making myself clear.

4 A person -- everybody who drinks, they are  
5 always going to be in the absorption phase, rising for a  
6 certain period of time?

7 A. Yes.

8 Q. Yes, everybody. Because that's how you get up  
9 to a certain B.A.C. level, right?

10 A. Yes.

11 Q. Okay. So just because a person might be a  
12 .149 later, that doesn't always mean that they were  
13 higher at some point earlier. They could also be lower,  
14 correct?

15 A. Correct.

16 Q. Okay. And you said that a person could still  
17 be rising for up to two hours?

18 A. There are --

19 Q. Is that what you said?

20 A. There is a record -- it's exceptionally long.  
21 There are two instincts. There are people that can  
22 absorb in 50 minutes which are extremely slow. There  
23 are people that are extremely fast. There are people  
24 who absorbs for two hours. They are extremely too long.  
25 Those populations are very minor.

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1 Q. Extremes?

2 A. Yeah.

3 Q. What causes the slower absorption, the slower  
4 rising? They ate, right?

5 A. One of -- yeah, one of the culprit is they ate.

6 Q. So if you got a person that admits to eating or  
7 if a person has eaten, that will slow how long they are  
8 rising for?

9 A. Correct.

10 Q. Okay. So let's say that you use -- so two  
11 hours is extreme. So, 90 minutes is not in the extreme.  
12 That's in the reasonable range, correct?

13 A. That's reasonable, yes.

14 Q. Okay. So, if you had 10:15 at the time of last  
15 drink to 11:45, stop time, is that 90 minutes?

16 A. Yes.

17 Q. Okay. So, if a person had eaten, you are  
18 saying that it's reasonable to assume that they could  
19 still be going up, correct?

20 A. Yeah.

21 Q. Okay. That's very reasonable. You wouldn't  
22 argue with that at all, right?

23 A. Was the -- was the fact that he could be in an  
24 exceptional group, yeah.

25 Q. Well, not only that, you just said that based

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Cross-Examination by Mr. Flood

1 on even a reasonable assumption of 90 minutes, if a  
2 person ate, if their last drink was at 10:15 and they  
3 were stopped at 11:45, that under that scenario they  
4 would still be going up?

5 A. Going up. At 11:45, it's going to be one hour  
6 and --

7 Q. Yes, at 11:45 they would be going up?

8 A. Yes.

9 Q. Okay. So what matters is what the B.A.C. was  
10 at the time a person was driving, correct?

11 A. Correct.

12 Q. Okay. So, if they were still going up  
13 absorbing and then potentially even past that, correct,  
14 they could still be going up even longer, according to  
15 what you said?

16 A. That's possible, uh-huh.

17 Q. Okay. So, with that in mind, then, can you  
18 tell me what the B.A.C. in this case would have been at  
19 the time of driving at 11:45? Can you say what the  
20 number is?

21 A. The one that I use --

22 Q. If they are still absorbing --

23 A. If they are still absorbing --

24 Q. -- what's the B.A.C.?

25 A. I could not specifically say. I can give you a



1 range; but I cannot specifically say because when you  
2 are absorbing, it's very hard to -- you can, what,  
3 estimate it; but you cannot specifically say this would  
4 be it, yeah.

5 Q. Right. Because if a person is still going up  
6 and absorbing, you can't say what their B.A.C. would be,  
7 right?

8 A. It's very difficult.

9 Q. Yeah, very difficult. And all of the  
10 scientific literature out there tells you it's something  
11 that you should not -- very, very strong cautions -- you  
12 should not even attempt to do that extrapolation if a  
13 person is still rising, right?

14 A. If you are assuming that the person may be  
15 rising --

16 Q. Right. That's what I'm asking.

17 A. -- and you can only get it with a range.

18 Q. Right.

19 A. You can't go to pinpoint on that at one point,  
20 yeah.

21 Q. So, there's two different scenarios. And my  
22 scenario is reasonable, like you said. A person could  
23 still --

24 MR. BATY: Objection, argumentative.

25 THE COURT: Overruled.

1 Q. (BY MR. FLOOD) A person could still be  
2 absorbing under that scenario, right?

3 A. Uh-huh.

4 Q. And the State's scenario they gave you, they  
5 want you to assume that he's already going down, right?

6 A. Yeah.

7 Q. Right? But we don't know which one of those it  
8 is, right? You don't know, do you?

9 A. I don't but --

10 Q. Do you know if he was absorbing or eliminating  
11 that night, at the time that he was stopped?

12 A. No, I don't.

13 Q. Okay.

14 A. We are just only using what's been published.

15 Q. Okay.

16 MR. FLOOD: I will pass, ma'am.

17 THE COURT: I'm sorry, ma'am. Go ahead  
18 and finish what you were saying.

19 THE WITNESS: I'm just using only what's  
20 been published on a study. I really don't know about  
21 that person.

22 Q. (BY MR. FLOOD) About that person. Thank you.  
23 I'm sorry.

24 MR. FLOOD: I will pass the witness.

25 THE COURT: All right. Mr. Baty.

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BY MR. BATY:

Q. Dr. Gualle, you said you would give a range. What range would that be if -- based on what the defense just asked you, what would that range most likely be?

MR. FLOOD: Your Honor, I'm sorry, but I just -- I object to speculation because of the inherent unreliability of extrapolating into the absorption phase as she testified and said, I don't know what it would be. It's unreliable if the person is in the elimination phase.

THE COURT: It's overruled. Go ahead.

MR. BATY: Thank you.

A. Okay. Supposed he was absorbing at that time which is 11:45, okay? And we add an absorbed amount for 30 minutes and subtract that, and then what I can do is subtract the .015 or subtract the .02 which you can possibly absorb within that 30 minutes and subtract it from .19 which is going to be 0.0 -- I mean .170. That's an estimation. So, the range would be from .170 to .190.

Q. (BY MR. BATY) So, .170 is how much above .08,  
the legal limit in the State of Texas?

A. It's twice.

MR. BATY: Pass the witness, Your Honor.

1 THE COURT: Mr. Flood.

2 RECROSS-EXAMINATION

3 BY MR. FLOOD:

4 Q. Dr. Guale, do you know if the blood that they  
5 tested -- can you prove the blood that they tested in  
6 this case, do you know that it was Mr. Gonzalez's?

7 A. All we know, what we tested, the blood is  
8 associated with his name. That's all we know.

9 Q. Is the number --

10 A. There is a name. There is a number that we  
11 associate the blood with.

12 MR. FLOOD: I will pass the witness.

13 THE COURT: Mr. Baty.

14 MR. BATY: No further questions, Your  
15 Honor.

16 THE COURT: May this witness be excused?  
17 Any objections from the State?

18 MR. BATY: Your Honor, I would ask that  
19 she be left on call, just in case other evidence comes  
20 in that she might want to sit in as an expert witness.

21 THE COURT: Okay. Then that's what we  
22 will have you do, ma'am. If you will step out in the  
23 hallway for me, please.

24 All right. State?

25 MR. BATY: State rests at this time, Your

Fassessework Guale, DVM - August 19, 2016  
Recross-Examination by Mr. Flood

1 Honor.

2 (END OF REQUESTED EXCERPT)

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6 (No charge for this page)

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**Pierce, Michal (IFS)**

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**From:** Young, Cynthia (IFS)  
**Subject:** Court Testimony  
**Attachments:** COURT TESTIMONY EVALUATION, rev 6.docx

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**From:** Young, Cynthia (IFS)  
**Sent:** Tuesday, June 30, 2015 4:37 PM  
**To:** 'Tyler@tylerflood.com' <[Tyler@tylerflood.com](mailto:Tyler@tylerflood.com)>  
**Subject:** Court Testimony

Good afternoon Mr. Flood,

Toxicologists, Josie Hollowell and Dr. Fessessework Guale, testified on 06/26/15, in the case of State of Texas vs. Matt Sechrist. In order to fulfill a specific requirement for our laboratory accreditation, we seek feedback from attorneys when our analyst testify. This feedback is vital to our quality assurance program.

Please complete the attached evaluation form for each analyst and return by fax to 713-796-6794 or by email to [cynthia.young@ifs.hctx.net](mailto:cynthia.young@ifs.hctx.net). The laboratory case number is IFS14-16996.

Thank you for your assistance,

Cynthia Young, BS, D-ABFT-FT  
Quality Manager  
Harris County Institute of Forensic Sciences  
1885 Old Spanish Trail  
Houston, Texas 77054  
713-796-6912  
713-796-6794 (fax)  
[cynthia.young@ifs.hctx.net](mailto:cynthia.young@ifs.hctx.net)

**Pierce, Michal (IFS)**

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**From:** Young, Cynthia (IFS)  
**Subject:** Court Testimony  
**Attachments:** COURT TESTIMONY EVALUATION, rev 6.docx

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**From:** Young, Cynthia (IFS)  
**Sent:** Friday, August 26, 2016 4:40 PM  
**To:** [alli@tylerflood.com](mailto:alli@tylerflood.com)  
**Subject:** Court Testimony

Good afternoon Ms. Lannon,

Toxicologists, Kim Peterson and Dr. Fessessework Guale, testified on 08/19/16, in the case of State of Texas vs. Rusbel Gonzalez. In order to fulfill a specific requirement for our laboratory accreditation, we seek feedback from attorneys when our analyst testify. This feedback is vital to our quality assurance program.

Please complete the attached evaluation form for each analyst and return by fax to 713-796-6794 or by email to [cynthia.young@ifs.hctx.net](mailto:cynthia.young@ifs.hctx.net). The laboratory case number is IFS16-02572.

Thank you for your assistance,

Cynthia Young, BS, D-ABFT-FT  
Quality Manager  
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**HARRIS COUNTY DISTRICT ATTORNEY**  
DEVON ANDERSON

September 19, 2016

**VIA U.S. AND ELECTRONIC MAIL:**

Lynn Garcia, General Counsel  
Texas Forensic Science Commission  
1700 North Congress Avenue, Suite 445  
Austin, Texas 78701

Re: *Request for Assistance regarding Dr. Fessessework Guale, HCIFS*

Dear Mrs. Garcia,

As you may be aware, the Harris County Institute of Forensic Sciences ("HCIFS") recently made a disclosure to the Harris County District Attorney's Office about Dr. Fessessework Guale, Toxicology Analytical Operations Manager for HCIFS. The disclosure involved a concern that Dr. Guale had testified in Harris County criminal court that she possessed a Master of Science degree in Toxicology when, in fact, she holds a Master of Science degree in Physiological Science.

Upon receipt of this information, we made immediate disclosure to the criminal defense bar, and began gathering case information and trial transcripts. This process is still ongoing.

Shortly after making disclosure to the defense bar, we learned that the documents provided to defense counsel in response to standard discovery motions on blood toxicology cases have indicated that Dr. Guale had a Master of Science degree in Toxicology, including her curriculum vitae ("CV") and her ASCLD/Lab Statement of Qualifications ("SOQ"). Additionally, Dr. Guale has testified that she is board certified with the American Board of Forensic Toxicologists ("ABFT") as a "Forensic Toxicology Specialist." However, on August 1, 2014, the ABFT notified their membership that the designation for "Forensic Toxicology Specialists" had been changed to "Diplomates." Most recently, we have learned that Dr. Guale's employment application for her job at HCIFS indicated that she held a Master of Science degree with a major in Toxicology, a minor in Physiological Science, and graduate studies in Toxicology.

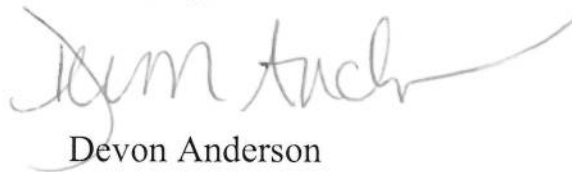
We are seeking assistance from the Texas Forensic Science Commission to help determine the following:

- 1) Whether the educational background portion of Dr. Guale's sworn testimony constitutes professional negligence or misconduct that would substantially affect the integrity of the results of a forensic analysis conducted by an accredited crime laboratory;
- 2) Whether the substantive portion of Dr. Guale's sworn testimony regarding toxicology constitutes professional negligence or misconduct that would substantially affect the integrity of the results of a forensic analysis conducted by an accredited laboratory; and
- 3) If there are any other areas of concern regarding the subject matter on which Dr. Guale has been called to testify as a forensic science expert in criminal court.

We are not scientists, we are lawyers. HCIFS has been extremely cooperative and forthcoming about this issue; however, we believe that based on the evolving nature of the allegations it would be prudent to have Dr. Guale's testimony reviewed by independent experts in the field of toxicology to determine whether her misstatements are limited to her educational background or if there is cause for concern about the substance of her testimony.

The Harris County District Attorney's Office will provide any and all case information, trial transcripts, and laboratory reports needed for this review. We appreciate any help the Commission is able to provide

Sincerely,

A handwritten signature in dark ink, appearing to read "Devon Anderson", with a long, sweeping horizontal line extending to the right.

Devon Anderson

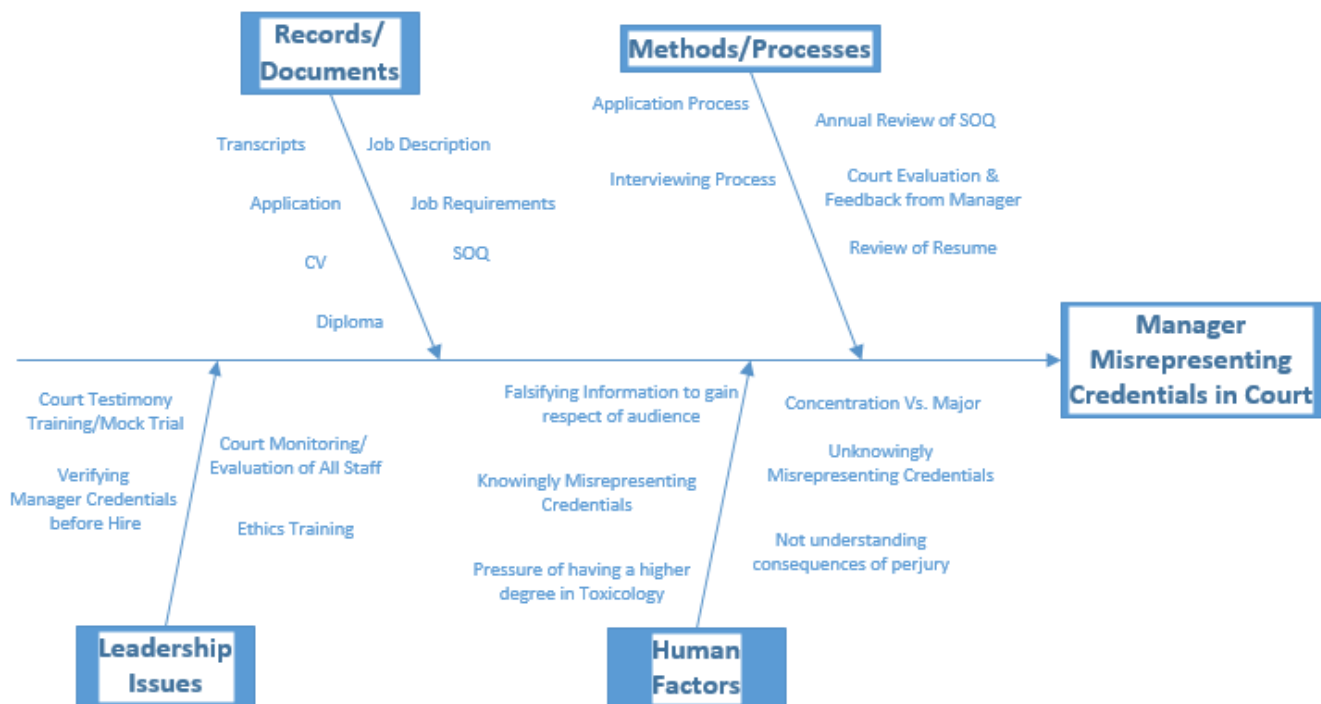
### Define Event:

In late August 2016 it was discovered the Analytical Operations Manager (AOM) was misstating the title of her Master of Science degree during court testimony.

RCA Team- Quality Director, Quality Manager, QA/QC Project Coordinators, Director of Toxicology and Chemistry, and Chief Toxicologist.

Triggers- Unclear testimony regarding the nature of her degrees led to management review of provided documentation and past court transcripts, as well as direct observation of testimony.

### Find Possible Causes:



See [summary](#) that overlaps Defining Event & Finding Potential Causes for CAR.

## Find the Root Cause:

### Records/Documents

Were all the records containing her credentials consistent with each other?

→ NO. The major stated on her **transcript** and **diploma** did not match what was written on her job **application, CV, or SOQ**.

Did she try to hide her true major by withholding documents?

→ NO. The diploma was in her Q-Pulse People file. If she submitted her diploma, she was not hiding her true major.

Did she misrepresent credentials in order to qualify for her position?

→ NO. She met the criteria of her initial and ultimate **job description** and was qualified to perform her **required duties**. There was no need for her to misrepresent credentials in order to gain employment or a promotion.

### Methods/Processes

Were her credentials verified at the time of hiring?

→ UNKNOWN. The **application process** did not require official transcripts to be submitted by applicants in 2006. **(A) Interviews** varied; it was at the discretion of the hiring manager to verify credentials. Her hiring manager is no longer employed by the office.

Were her **CV** and **SOQ** checked for accuracy?

→ NO. Staff CVs are currently not checked. SOQs were often reviewed for format and consistency with duties by QA personnel; however, up until this point they were normally not checked against diplomas or transcripts. **(B)** A misstated degree would not have been caught unless someone compared the SOQ against the diploma or transcript.

Was there a lack of **court monitoring and evaluation**?

→ MAYBE. Toxicology staff, particularly managers, were historically evaluated by attorneys or other court parties, not crime lab personnel. **(C)** Earlier monitoring would have caught the misrepresentation on the stand only if the manager was aware of her degree as stated in her diploma.

### Leadership Issues

Were opportunities missed early on to **verify her credentials** or **monitor her court testimony**?

→ UNKNOWN. Again, it is unclear if her hiring manager verified her credentials or observed her testify in court. If her hiring manager was aware of the discrepancy between her application and SOQ and did not take action, then it is likely the hiring manager would not have acted if she heard her misstate her credentials on the stand.

Did the agency fail to provide **testimony training**?

→NO. Accreditation mandates training for staff in forensic science and criminal and civil law procedure. The AOM attended general forensic science knowledge and general court testimony training sessions throughout her career at IFS. Although the AOM had participated in a **mock trial** during her first year of employment, she did not complete a mock trial when the scope of her testimony changed. It remains unknown if a mock trial would have led to the issue being caught sooner.

Did the agency fail to provide **ethics training**?

→NO. Accreditation mandates ethics training for laboratory personnel. The AOM had attended multiple ethics training sessions throughout her career at IFS.

### Human Factors

Did she confuse the concepts of **course concentration** and **major**?

→NO. Neither the educational institution nor her transcript provided evidence that her program offered a toxicology concentration or toxicology emphasis. Nevertheless, the AOM felt strongly that her toxicology courses and toxicology research meant that her degree was “in toxicology.”

Was there **pressure** from staff or agency management to possess a higher degree in “toxicology”?

→NO. The AOM possessed multiple post-graduate degrees. She was in a director-level position despite the fact that none of them contained the word “toxicology.”

Was the misrepresentation of her credentials done so maliciously?

→NO. The AOM did not have a history of falsifying results or records. She was **not known to intentionally misrepresent** facts.

Did the AOM wish to curtail the process of being qualified as an expert in toxicology?

→YES. She was uncomfortable with the adversarial nature of the courtroom. When attorneys **qualify an expert witness** for the jury, a series of questions are asked about the witness’s education, training, and experience. The more relevant one’s education, training, and experience is to their field of expertise, the faster the attorney can qualify the witness. Irrelevant degrees may prompt additional questions from an attorney.

Did she understand the consequences her actions would have on the cases and her career?

→NO. The AOM considered the conflation of her true degree as innocuous, and that others would find it innocuous, as well. The associated consequences, up to and including **perjury**, were not on her radar, and therefore, they were not a deterrent. Even when confronted with her wrongdoing, she did not fully appreciate the consequences her actions had within the criminal justice system.

See [summary](#) for solutions and action (Corrective Action & Preventative Action)

Preventative changes that were already implemented after the AOM was hired:

- (A) Currently, lab policy mandates official transcripts and/or diplomas to be checked before hiring.

Preventative changes that were implemented after the incident:

- (B) Lab policy has been changed to require records to be submitted with every SOQ and CV revision.
- (C) Re-emphasized existing IFS testimony monitoring policy to stress the importance of managers receiving direct testimony observation by IFS personnel.

**Measure and Assess:**

- 1) Further ethics discussions with the staff showed all understood the severity and ramifications of misrepresenting credentials.
- 2) SOQ reviews showed the need to request supporting records from current staff. All SOQs and CVs have been updated with supporting records.
- 3) Closed RCA October 21, 2016

Employee name: Ferresework Guala

## TRAINING AGREEMENT

EMPLOYEE: Fessenden, Gabe DATE: 2/19/12

☐ New Hire  
☐ New/Revised Procedure  
☐ Retraining for Remedial Purposes  
☐ Verification of Employees Performance

TRAINER: JAN Michael DATE: 09/2013

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The employee can perform the indicated procedures with minimal supervision.

ASSESSMENT COMPLETED BY: Sullym Beard DATE: 9/20/13

- ☐ Competency Test
- ☐ Proficiency Test
- ☐ Oral Exam



MANAGER:



DATE:

9/26/13

**\*TRAINING METHOD:**

R = Read Procedural Steps

O = Observe demonstration

P = Perform with Supervision

PM = Perform without Supervision

# *Certificate of Attendance*

is hereby granted to

**FESSESSEWORK GUALE**

To certify attendance at the training class:

**"Ethics Training"**

a 2.0 hour class held on December 9, 2009

*Human Resources & Risk Management*



Debbie S. Chapman, PHR  
Training Administrator

# *Certificate of Completion*

This certifies that

**Fessework Gual**

Completed the


**Jon S. Byrd, M.S.**


**Confirmation Bias, Ethics, and Mistakes in Forensics  
Forensic Ethics Seminar**

**May 12, 2010**

Sponsored by the

**Harris County Institute of Forensic Sciences**

  
Ashraf Mozayani, Ph.D., D-ABFT  
Crime Laboratory Director

  
Luis A. Sanchez, M.D.  
Chief Medical Examiner

# Fesseseswork Guale

Has attended and met the requirements of the on-line course:

## Expert Testimony for the Prosecutor and Scientist

On

1/13/2012

This course was provided with funding from National Institute of Justice

This course provided one contact hour



Certificate Number: 1096941996

For further information: [www.rti.org/forensiced](http://www.rti.org/forensiced)

# Fessessework Guale

Has attended and met the requirements of the on-line course:

## **Expert Testimony for the Prosecutor and Scientist II**

On

**1/26/2012**

This course was provided with funding from National Institute of Justice

This course provided one contact hour



Certificate Number: 1097341629

For further information: [www.rti.org/forensiced](http://www.rti.org/forensiced)

Luis A. Sanchez, M.D.  
Chief Medical Examiner



Main: (713) 796-9292  
Fax: (713) 796-6844

## Harris County Institute of Forensic Sciences

### Expert Testimony Training – Logistics MEETING TITLE

9/20/12  
DATE

1st floor classroom  
LOCATION

1:30 pm – 2:00 pm  
TIME

	NAME (Typed or Printed)	SIGNATURE
1	Dr. Ashraf Mozayani	
2	Andre Salazar	
3	Dr. Anna Kelly	<i>Anna Kelly</i>
4	Ashlyn Beard	<i>Ashlyn Beard</i>
5	Dr. Charlotte Baker	
6	Collin Clay	<i>Collin Clay</i>
7	Crystal Arndt	<i>Crystal Arndt</i>
8	Dana Mike	
9	DeShaun Alexander	
10	Dr. Fessessework Guale	<i>F-Guale</i>
11	Fredria Shaw	
12	Fu Tian	
13	Glenna Thomas	<i>Glenna Thomas</i>
14	Dr. Hsin-Hung Chen	<i>Dr. Hsin-Hung Chen</i>
15	Jameaker Dumas	<i>Jameaker Dumas</i>
16	James Sailors	
17	Dr. Jeff Walterscheid	<i>Dr. Jeff Walterscheid</i>
18	Josie Hollowell	<i>Josie Hollowell</i>
19	Linda Alvarado	<i>Linda Alvarado</i>
20	Linda Nickell	

July 18, 2012

Page 2 of 2

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	NAME (Typed or Printed)	SIGNATURE
21	Meagan Ocanas	Meagan Ocanas
22	Paola Velasco	
23	Patti Small	Patti Small
24	Dr. Samuel Wyllie	
25	Angela Mwadime	
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**Luis A. Sanchez, M.D.**  
Chief Medical Examiner



Main: (713) 796-9292  
Fax: (713) 796-6844

## Harris County Institute of Forensic Sciences

### Expert Testimony Training – Analogies MEETING TITLE

9/20/12  
DATE

1st floor classroom  
LOCATION

2:00 pm – 2:30 pm  
TIME

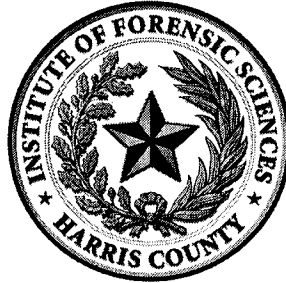
	NAME (Typed or Printed)	SIGNATURE
1	Dr. Ashraf Mozayani	
2	Andre Salazar	
3	Dr. Anna Kelly	
4	Ashlyn Beard	Ashlyn Beard
5	Dr. Charlotte Baker	Charlotte Baker
6	Collin Clay	Collin Clay
7	Crystal Arndt	Crystal Arndt
8	Dana Mike	
9	DeShaun Alexander	
10	Dr. Fessessework Guale	F-Guale
11	Fredria Shaw	
12	Fu Tian	
13	Glenna Thomas	Glenna Thomas
14	Dr. Hsin-Hung Chen	Dr. Hsin-Hung Chen
15	Jameaker Dumas	Jameaker Dumas
16	James Sailors	
17	Dr. Jeff Walterscheid	
18	Josie Hollowell	Josie Hollowell
19	Linda Alvarado	Linda Alvarado
20	Linda Nickell	

July 18, 2012

Page 2 of 2

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	NAME (Typed or Printed)	SIGNATURE
21	Meagan Ocanas	meagan ocanas
22	Paola Velasco	
23	Patti Small	
24	Dr. Samuel Wyllie	
25	Angela Mwadime	
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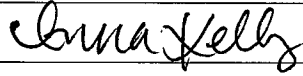
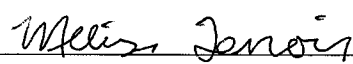
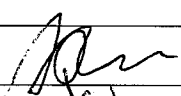
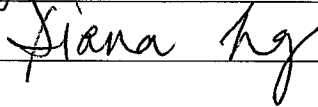
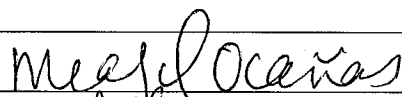
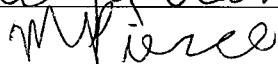
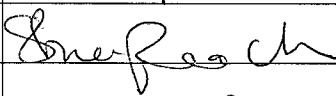


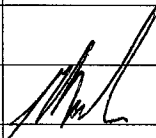
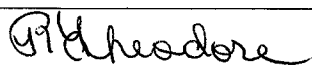
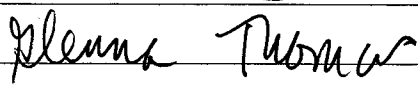
**AGENDA – General Knowledge of Forensic Science**  
**Wednesday, August 21, 2013**

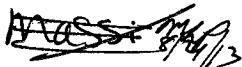
- **8:30am – Introduction (Ms. Pierce)**
- **9:00am – Drug Chemistry (Ms. McClain)**
  
- **BREAK**
  
- **9:45am – Toxicology (Dr. Waltersheid)**
- **10:15am – Firearms (Mr. Baldwin)**
  
- **BREAK**
  
- **11:00am – Trace (Dr. Davis)**
- **11:30am- Serology/DNA (Ms. Freeman)**

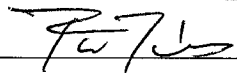
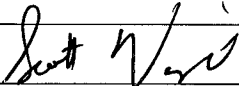
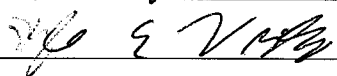
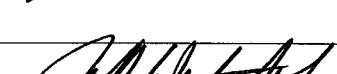

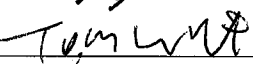
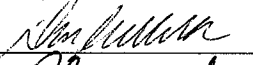



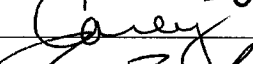
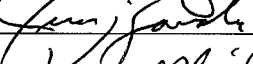
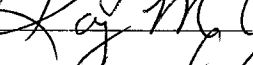


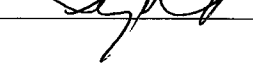



## Harris County Institute of Forensic Sciences

Crime Laboratory Staff – Mandatory Meeting General Forensic Science Training 1 <sup>st</sup> Floor Classroom 8:30 am – 11:30 am		
	Lab Personnel	Signature
1.	Aguilar de Alba, Ana Karina	
2.	Alexander, DeShaun	
3.	Alvarado, Linda	
4.	Arndt, Crystal	
5.	Baker, Charlotte	
6.	Baldwin, Robert	
7.	Beard, Ashlyn	
8.	Binder, LaToya	
9.	Bruns, Bradley	
10.	Cao, Tuan	
11.	Cavalier, Dimika	
12.	Chen, Michael	
13.	Clay, Collin	
14.	Crandell, Katelyn	
15.	Davis, William	
16.	Disiere, Brittany	
17.	Dumas, Jameaker	
18.	Dupre, Jill	
19.	Ellis, Michelle	
20.	Gaswint, Jason	
21.	Guale, Fessessework	
22.	Hohler, Melinda K. Wilson	
23.	Hollowell, Josie	
	Faulkner, Anthony	

<b>Crime Laboratory Staff – Mandatory Meeting</b> <b>General Forensic Science Training</b> <b>1<sup>st</sup> Floor Classroom</b> <b>8:30 am – 11:30 am</b>		
	<b>Lab Personnel</b>	<b>Signature</b>
24.	Jiang, Julia	
25.	Kelly, Anna	
26.	LaPorte, Dawn	
27.	Lenoir, Melissa	
28.	McClain, Kay	
29.	Mike, Dana	
30.	Mwadime, Angela R.	
31.	Ng, Diana	
32.	Nguyen, Khanh	
33.	Nickell, Linda	
34.	Ocanas, Meagan	
35.	Pierce, Michal	
36.	Reach, Shrey	
37.	Rizvi, Shaheen	
38.	Sailors, James	
39.	Salazar, Andre	
40.	Samms, Warren	
41.	Santillan, Abel	
42.	Schroeder, Jason L.	
43.	Shahreza, Shahriar	
44.	Shaw, Fredria	
45.	Small, Patricia	
46.	Theodore, Richele	
47.	Thomas, Glenna	



Crime Laboratory Staff – Mandatory Meeting General Forensic Science Training 1 <sup>st</sup> Floor Classroom 8:30 am – 11:30 am		
	Lab Personnel	Signature
48.	Tian, Fu	
49.	Turner, Jennifer	
50.	Vajdos, Scott	
51.	Vircks, Kyle Edward	
52.	Walters, Kacie	
53.	Walterscheid, Jeffrey	
54.	White, Thomas	
55.	Williams, Donna	
56.	Williams, Sharonda	
57.	Young, Cynthia	
58.	Lyons, Tammy	
59.	Muhlhauser, Carey	
60.	Jesse Zavala	
61.	Kay McClain	
62.	Samuel Wolfe	
63.	Autumn Massiello	
64.	ROBIN FREEMAN	
65.		
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71.		

# **Fessessework Guale**

Has attended and met the requirements of the on-line course:

## **Answering the NAS: The Ethics of Leadership and the Leadership of Ethics**

On

09/4/2013

This course was provided with funding from National Institute of Justice

This course provided one contact hour



Certificate Number: 1131887473

For further information: [www.rti.org/forensiced](http://www.rti.org/forensiced)



# *Certificate of Completion*

This certifies that

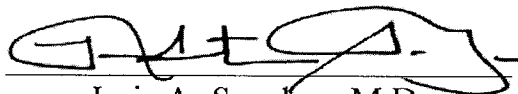
***FESSESSEWORK GUALE***

Has Participated in

***“Expert Witness Testimony Workshop”***

Presented at the Harris County Institute of Forensic Sciences

**November 7 & 8, 2013**



Luis A. Sanchez, M.D.  
Chief Medical Examiner

# CERTIFICATE OF ATTENDANCE

THIS CERTIFIES THAT

Fessessework Guale

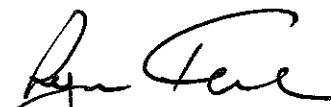
has successfully completed the required 1.5 hour

## ETHICS WORKSHOP

Given this 20<sup>th</sup> day of May, 2014



Michal Pierce, M.S.  
Quality Director



Roger Kahn, Ph.D.  
Crime Laboratory Director



# CERTIFICATE *of* COMPLETION

Is hereby awarded to

**DR. FESSESSEWORK GUALE**

for completing the

**GENERAL KNOWLEDGE OF FORENSIC SCIENCE TRAINING**

A 1.0 hour training session was completed on Thursday, April 2, 2015.

Presented by  
Quality Management/Training Development



---

**Michal L. Pierce, MS, F-ABC**

Quality Director  
Harris County, Texas



HARRIS COUNTY  
**INSTITUTE** SCIENCE.  
SERVICE.  
**OF FORENSIC SCIENCES** INTEGRITY.

The Harris County Institute of Forensic Sciences is accredited by the National Association of Medical Examiners, American Society of Crime Laboratory Directors/Laboratory Accreditation Board-*International*, American Board of Forensic Toxicology, Texas Department of Public Safety, Accreditation Council for Graduate Medical Education, and the Texas Medical Association for the Accreditation Council for Continuing Medical Education.



# CERTIFICATE OF ATTENDANCE

THIS CERTIFIES THAT

Fessessework Guale

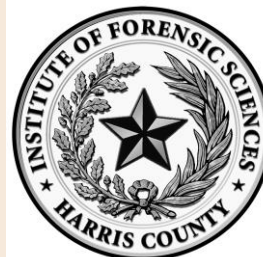
has successfully completed the required 1.5 hour

## ETHICS WORKSHOP

Given this 17th day of August, 2015



Michal Pierce, M.S.  
Quality Director



Roger Kahn, Ph.D.  
Crime Laboratory Director



## Corrective and Preventive Actions Report

Printed on: Tuesday, December 27, 2016

### Details

<b>Number</b> TOX16.03	<b>Status</b> Closed	<b>Owner</b> Gray, Teresa	<b>Raised Date</b> 8/26/2016
<b>Source</b> Crime Laboratory\Forensic Toxicology	<b>Standard</b>		<b>Target Date</b>
<b>Raised By Person</b> Samms, Warren	<b>Severity</b> Level I	<b>Raised Against (Department or Supplier)</b> Crime Laboratory Services\Toxicology	

### Define Problem

<b>Target Date</b>	<b>Owner</b> Pierce, Michal	<b>Closed Date</b> 9/8/2016	<b>Closed By</b> Pierce, Michal
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#### Details

The Toxicology Analytical Operations Manager (AOM) had difficulty explaining her qualifications on the witness stand during a routine line of questioning resulting in an Assistant District Attorney (ADA) expressing concern over her testimony performance. While reviewing the court testimony with the ADA afterward, it was discovered the AOM was misstating the title of her Master of Science degree. The AOM's behavior on the stand appeared to deviate from two established codes of ethics:- The ASCLD/LAB Guiding Principles of Professional Responsibility for Crime Laboratories and Forensic Sciences requires that a forensic expert "accurately represent their education, training, experience, and area of expertise." -The American Board of Forensic Toxicology expects all certificate holders to follow the ABFT Code of Ethics, among which is the requirement to "Perform all professional activities in Forensic Toxicology with honesty and integrity, and refrain from any knowing misrepresentation of their professional qualifications, knowledge and competence, evidence and results of examinations, or other material facts."

### Investigate-Root Cause Analysis

<b>Target Date</b>	<b>Owner</b> Gray, Teresa	<b>Closed Date</b> 9/29/2016	<b>Closed By</b> Pierce, Michal
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#### Details

The Assistant District Attorney was interviewed about the expert witness testimony, as a testimony transcript (which was requested) was not immediately available. Specifically, the employee stated on the stand that she did not receive education or training regarding the effects of alcohol on humans. The employee was then counselled about the feedback obtained, and stated that she interpreted the question as being only within the confines of her formal education, not any subsequent work experience, training, or continuing education. The Chief Toxicologist accompanied the employee to her next court appearances in order to directly observe her testify. Several deficiencies were noted by the Chief Toxicologist. A subsequent review of her credentials revealed that her Master of Science degree was not in "Toxicology", as stated in past court transcripts; rather, it was in "Physiological Science". Furthermore, she stated her degree was in Toxicology on her SOQ, curriculum vitae, and employment application. When the employee was asked about the apparent discrepancy in her testimony about credentials, she stated that she always considered her degree to be "in Toxicology" due to the nature of her coursework and research, despite the fact that her degree and transcript stated otherwise. Accordingly, the root cause was determined to be that the employee felt that the term "Toxicology" better described her course of study, and did not believe that she was misrepresenting her credentials. Further, she failed to recognize the ramifications this discrepancy would have on her professional integrity and within the criminal justice system.

## Determine Action

<b>Target Date</b>	<b>Owner</b> Gray, Teresa	<b>Closed Date</b> 9/29/2016	<b>Closed By</b> Gray, Teresa
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### Details

Re-train the employee to communicate her credentials and professional opinions in the most clear and accurate manner possible while on the witness stand.

## Corrective Action

<b>Target Date</b>	<b>Owner</b> Gray, Teresa	<b>Closed Date</b> 10/10/2016	<b>Closed By</b> Gray, Teresa
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### Details

-A performance improvement plan (attached) was developed to re-train the employee in expert testimony, with an emphasis in clarity of communication.-The discovery about the misstated degree was disclosed to the Harris County District Attorney's Office. A list of potentially affected cases was generated and submitted to the attorneys.-All three accreditation bodies were notified of the nonconformance.

## Actions

Number	Owner	Target Date	Completed Date
Details	Response		
1	Gray, Teresa	11/30/2016	10/10/2016
Performance Improvement Plan was developed, presented, and signed by the employee on 8/30/16.		Employee resigned on 9/21/16, before completing the P.I.P.	
2	Pierce, Michal	9/6/2016	9/6/2016
The Crime Laboratory Director and Quality Director met with the Belinda Hill, Allison Baimbridge, Terrence Wyndham, and Inger Chandler from the HCDAO on 9/6/16 to discuss the discrepancies noted in the employee's testimony.		The HCDAO issued a notice to the defense bar that same day.	
3	Pierce, Michal	9/9/2016	9/9/2016
The Texas Forensic Science Commission, ASCLD/LAB, and ABFT were notified of the nonconformance via email/electronic submission.		All acknowledged receipt of the disclosure.	

## Preventive Action

<b>Target Date</b>	<b>Owner</b> Pierce, Michal	<b>Closed Date</b> 10/11/2016	<b>Closed By</b> Pierce, Michal
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### Details

-All SOQs and curricula vitae of crime laboratory employees will be reviewed for consistency with their submitted diplomas and academic transcripts. Supporting documentation for claims will be requested, if not already on file with HCIFS.-Honesty about education and qualification in area of expertise is being reiterated in ethics training sessions.-Court transcripts were reviewed by management and incidents of note will be incorporated into future testimony training sessions.

## Rev/App By: Manager/Director

<b>Target Date</b> 9/29/2016	<b>Owner</b> Samms, Warren	<b>Closed Date</b> 10/12/2016	<b>Closed By</b> Samms, Warren
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### Details

I acknowledge I have reviewed this summary and approve.

## Rev/App By: Crime Lab Director

<b>Target Date</b> 10/10/2016	<b>Owner</b> Kahn, Roger	<b>Closed Date</b> 10/17/2016	<b>Closed By</b> Kahn, Roger
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### Details

I acknowledge I have reviewed this summary and approve.

**Rev/App By: Quality Mgr**

<b>Target Date</b> 10/11/2016	<b>Owner</b> Young, Cynthia	<b>Closed Date</b> 10/17/2016	<b>Closed By</b> Young, Cynthia
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**Details**

I acknowledge I have reviewed this summary and approve.

**Closure by Quality Director**

<b>Target Date</b>	<b>Owner</b> Pierce, Michal	<b>Closed Date</b> 10/21/2016	<b>Closed By</b> Pierce, Michal
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**Details**

Employee submitted a letter of resignation the week of September 19th, before completing the performance improvement plan. Ethics and testimony training for the rest of staff will continue as planned.





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## Comments on review of testimony given by Fessessework Guale, DVM

May 23, 2017

The Harris County Institute of Forensic Sciences' Chief Toxicologist and senior management reviewed the complaint submitted by Mr. Tyler Flood, on behalf of the Harris County Criminal Defense Lawyer's Association, and six additional transcripts provided by the Harris County District Attorney's Office. In each testimony, Dr. Fessessework Guale testified that she had a Master's degree in toxicology. As the Harris County Institute of Forensic Sciences disclosed to the Harris County District Attorney's Office in September 2016, Dr. Guale's degree is a Master of Science in Physiological Sciences.

In his complaint, Mr. Flood questions Dr. Guale's previous testimony regarding retrograde extrapolation. *Mata vs. State of Texas* holds an expert witness to a high standard when testifying to retrograde extrapolation:

"The expert's ability to apply the science and explain it with clarity to the court is a paramount consideration. In addition, the expert must demonstrate some understanding of the difficulties associated with a retrograde extrapolation. He must demonstrate an awareness of the subtleties of the science and the risks inherent in any extrapolation. Finally, he must be able to clearly and consistently apply the science."

In general, Dr. Guale communicates poorly, which we addressed in her performance improvement plan. Her testimony was occasionally unclear, contradictory or without sufficient explanation, problems that *Mata* cautions against. Ascertaining whether Dr. Guale possesses sufficient knowledge of forensic toxicology principles and their proper application to testimony is difficult from the reviewed transcripts because her testimony lacks detail and clarifying explanations. The following responses are based on some of the specific example transcripts provided by Mr. Flood in his complaint, as illustrations of the issues involved.

The *State v. Imrecke* transcript excerpt is from a "gatekeeper hearing" that was conducted outside the presence of the jury specifically to address the questions raised by *Mata*. Dr. Guale explained that her extrapolation calculations were performed with the assistance of a software program known as BACTracker. BACTracker performs anterograde and retrograde calculations according to information provided by the user, such as time of first drink, time of last drink, time of interest, tested BAC, height, weight, and gender. BACTracker, like any calculator, will perform calculations independent of context; the user must determine whether the entered variables and calculated results are appropriate. In this hearing, Dr. Guale was asked repeatedly how certain parameters (i.e. time of first drink, time of last drink, time of blood draw, time of incident, presence of food, etc.) impact the BAC calculation. Dr. Guale's responses clearly demonstrated that she relied on the software for calculation, and she was unable to convince the court that she appropriately understood the underlying ethanol pharmacokinetics upon which the software is based. On each occasion, she described how each parameter would affect the BACTracker program and how the absence of a parameter would default BACTracker to an "average" for the calculation. The judge characterized Dr. Guale's role as data entry.

Mr. Flood specifically questions Dr. Guale's testimony on retrograde extrapolations when an individual could still be absorbing alcohol. The challenge for any toxicology expert is to know that the individual is in the post-absorptive phase. Absorption is a multi-variate process, influenced by the amount and kind

of food eaten, smoking, the type of drink consumed, and gender, among others, and may last as little as 15 minutes or may extend beyond two hours. The absorption rate of a particular individual at a particular time is unknown as many of the critical variables are unknown or unknowable; therefore, the expert must assume absorption is complete to perform retrograde extrapolation or “subtract off” potentially unabsorbed alcohol. Different experts use different time “thresholds” between the time of last drink and the incident to assume complete absorption. Some experts use a 60-minute absorption window, as most individuals have completed absorption in an hour; others may use a more conservative two-hour window. Irrespective of the time threshold used, it is imperative that the expert acknowledges and clearly explains the assumptions made in their calculations, as required by *Mata*.

In the Imrecke transcript, Dr. Guale provides unclear and often contradictory testimony regarding extrapolation while still absorbing. Initially, the prosecutor presents a hypothetical in which 1 hour 41 minutes elapses between last drink and time of stop. Dr. Guale testifies to an extrapolated concentration using a pre-prepared BACTracker report without clearly stating she was assuming the defendant was in the elimination phase (Page 19). On Page 43, she disputes Mr. Flood’s assertion that absorption lasting for two hours or more is reported in the scientific literature (“It’s my experience that two hours – I haven’t seen, even with the slowest absorption, the maximum I saw is one and a half hours.”) This contradicts her testimony from the year prior in *State v. White* that absorption can take up to 2 hours. Dr. Guale then reverses her position in the Imrecke hearing when Mr. Flood offers to show her literature, ultimately agreeing that absorption can take up to two hours and later testifying on multiple occasions in the Imrecke hearing that the maximum is two hours. Mr. Flood asks her, “And generally, it’s not common practice for any lab professional or colleagues to attempt to extrapolate back into the absorption phase.” She responds, “Correct.” (Page 47). On further questioning, she says that extrapolation into the absorption phase “...just increases the range; that’s all it does really.” The court asks whether she can do extrapolation into the absorption phase, Dr. Guale does not directly answer the court’s question and instead answers about anterograde extrapolation (page 128). The court then provides a hypothetical using less than 2 hours for absorption and Dr. Guale says that she “can subtract 0.024 which is the total concentration of alcohol you can obtain from having a two hour absorption.” It is not clear how Dr. Guale calculated this 0.024 concentration. It is possible that she was attempting to “subtract off” unabsorbed alcohol, but she does not explain her thought process. On re-cross, Mr. Flood asks, “You testified several times that you cannot extrapolate and give a number if a person is in the absorption phase?” Dr. Guale responds, “You can give a range. You cannot extrapolate,” which is contradictory. She further testifies that the drinking pattern before the stop does not matter, which is incorrect, as the time of last drink is crucial for estimating absorptive state and calculating possibly unabsorbed alcohol, if she were “subtracting off” drinks proximate to the stop. By pages 53 to 55, it appears everybody was confused as to what the other party was saying, and the assumptions being made. With the confusion, it is difficult to differentiate whether Dr. Guale’s deficiency is her knowledge or her ability to communicate. Ultimately, the court grants the defense motion to suppress extrapolation testimony.

Dr. Guale provides similar testimony in another case (*State v. Rusbel Gonzalez*). The prosecutor provides a hypothetical for extrapolation. Dr. Guale performs the extrapolation, this time stating she was assuming elimination. On cross, she concedes that the defendant may be absorbing as approximately 1.5 hours elapsed from the time of last drink to stop; thus, she could only give a range for BAC (a range was not provided on direct). On re-direct, she explains that if the defendant was still absorbing she could subtract off 0.02 “which you can possibly absorb within that 30 minutes and subtract it” from the BAC. It is not clear how Dr. Guale arrived at 0.02 g/100 mL absorption within an hour. However, from both of these

courtroom examples it is clear that Dr. Guale believed that extrapolation in the absorption phase could be calculated, but the result would be provided as a range.

In his complaint, Mr. Flood also raises concerns about “chromatograms that do not match the labs calibration curve in blood ethanol cases. Dr. Guale was unable to provide an explanation as to [why] the results in the chromatograms provided to defense counsel do not match the values on the calibration curve for the batch run for the sponsored BAC result.” There are actually two issues here – 1) how the blood alcohol macro used by HCIFS updates the calibration curve with calibrators analyzed on the day of analysis and 2) how concentrations are displayed on the chromatogram versus on the calibration curve report.

For issue 1, the macro used by HCIFS automatically updates the calibration model after individual calibrators are analyzed, rather than updating after all six calibrators are finished running. For example, if we were re-calibrating today, the results from today’s calibrator 1 would replace yesterday’s calibrator 1; the calibration would be saved with today’s calibrator 1 and yesterday’s calibrators 2-6; and a chromatogram would print with a concentration calculated from the discontinuous calibration curve (identified as “raw data” in the Imrecke transcript). Then, results from today’s calibrator 2 would replace yesterday’s calibrator 2; the calibration would be saved with today’s calibrators 1 and 2 and yesterday’s calibrators 3-6, and the “raw data” would print. This process would repeat for all six calibrators. After the calibration curve is updated completely, chromatograms for today’s six calibrators would be printed with concentrations calculated from the complete, updated calibration model; these correct concentrations are used to assess the accuracy of the calibration model. In the Imrecke trial, Kimberly Peterson, former HCIFS Toxicologist III, provided accurate testimony on calibration, not Dr. Guale.

The second issue relates to how concentrations are rounded or truncated to the third decimal place by the instrument software. For chromatograms, concentrations are truncated to three decimal places, but on the calibration curve report, the concentrations are rounded. The rounding vs. truncated difference causes the concentrations to be different in the last decimal place on occasion. Ultimately, the issue is moot, as the concentration printed on the calibration curve report is not used to assess curve acceptability; only the chromatogram concentration is used. In the De La Cruz trial, Dr. Guale is asked about the difference, which she attributes to issue 1 described above. Dr. Guale thought defense counsel was hiding documents from her, which supported issue 1 and never attributes the difference to issue 2.

The testimony provided in these transcripts do not appear to meet the standards expected of an expert witness. Dr. Guale testified on relatively few occasions – 19 times from December 2011 to November 2015, as another toxicologist provided the majority of interpretative testimony. After November 2015, Dr. Guale testified more frequently as she was the highest-ranking member of the Forensic Toxicology Laboratory (14 cases from November 2015-August 2016). Current HCIFS management had no knowledge of Dr. Guale’s difficulties communicating in court until late 2015; from 2010 until then, Dr. Guale’s testimony evaluations were rated acceptable or higher. Feedback was sought both from the prosecuting and defense attorneys she encountered. Even in late 2015, the substance of Dr. Guale’s testimony was not questioned, just her ability to articulate. Questions about the substance of Dr. Guale’s testimony arose in mid-2016. By that time, a higher-ranking, qualified toxicologist was hired as Chief Toxicologist, and that individual was able to evaluate Dr. Guale’s toxicology knowledge. During direct observation of Dr. Guale’s testimony, the Chief Toxicologist noted similar issues to those found in the reviewed transcripts. Dr. Guale was placed on a performance improvement plan to address her deficiency.

Concurrently, the inconsistency in her degree was discovered, and Dr. Guale resigned before she could complete the performance improvement plan.

In her role as Analytical Operations Manager, Dr. Guale trained other analysts in alcohol interpretation and testimony. The Chief Toxicologist evaluated these analysts independently in July 2016 before Dr. Guale's testimony ability was questioned; in the Chief Toxicologist's opinion, these analysts understood and were able to explain sufficiently alcohol pharmacology.

As in the past, feedback regarding trial testimony will be actively sought from defense counsel, judges and prosecutors. Feedback will be collected and reviewed by an independent employee in the Quality Management Division so that any questions of competency may be addressed immediately as they are brought to our attention. Moving forward, several additional measures have been implemented to address inadequate testimony. First, all testifying personnel, including the technical managers, must be evaluated annually by a competent expert in the discipline. If the technical manager is the highest-ranking qualified member of the discipline, an external expert will be sought for testimony review. Concerns will be addressed promptly with regularly scheduled follow-up. Second, trainees must pass a mock trial before qualification and authorization to commence casework in a new category of testing when there is a reasonable expectation of testimony. Third, in the event there is a change in technical management, the new technical leader must review the credentials, qualifications, and competency of each analyst in that particular discipline. The review must be documented and may include new mock trials or direct observation in court for those analysts that testify.



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## Comments on additional review of testimony given by Fessessework Guale, DVM

July 12, 2017

The Harris County Institute of Forensic Sciences (HCIFS) received 32 transcripts from the Harris County District Attorney's Office (HCDAO) in June 2017. Case information for each, including the blood alcohol concentration, is listed in the table below. Ten of these transcripts (*Dailing, de la Cruz, Gaddis, Gonzalez, Hitt, Hull, Imrecke, Sitawisha, White* and *Williams*) were previously provided by the HCDAO or Harris County Criminal Defense Lawyer's Association and reviewed (see HCIFS response to the TFSC dated 5/23/2017); therefore, no new action was taken on these transcripts. The HCIFS chief toxicologist and senior management reviewed the remaining 22 transcripts.

Consistent with previously reviewed testimony, Dr. Fessessework Guale testified that she had a Master's degree in toxicology, which we have confirmed to be a Master's degree in Physiological Sciences from Oklahoma State University. Additionally, in *Allen, Arnold* and *Cisneros*, she is inconsistent regarding a degree in animal science, identified as a "bachelor's degree," "first degree" or just a "degree" without qualification.

Dr. Guale testified about ethanol in a majority of the newly reviewed transcripts. Consistent with previously reviewed testimony, she provides unclear and contradictory testimony regarding extrapolation and absorptive state. For example, in *Lengua* and *Sechrist*, she describes the time of first and last drink as the "most important" or "most crucial" variables for extrapolation, but in *Arnold, Lengua, Ronald Rodriguez* and *Ulloa*, she says such information is not necessary. Despite defense challenge on her opinion, as in *Ronald Rodriguez*, Dr. Guale maintains that time of last drink is not important because she knows the blood result (0.16g/100mL):

**Defense counsel:** "Okay. Now, without that specific information, like – the things like when he had the first drink, when he had the last drink, when exactly he ate that day, things like that, you can't specifically say he was above a 0.08 at the time of driving, right?"

**Dr. Guale:** "It doesn't matter. As a matter of fact, when he started drink and when he stopped drinking - "

**Defense counsel:** "Ma'am, hold on. Let me finish"

**Dr. Guale:** "-does not matter for the calculation."

**Defense counsel:** "It doesn't matter."

**Dr. Guale:** "It doesn't matter."

In at least five cases (*Cisneros, Lengua, K. Nguyen, Richardson, and Ronald Rodriguez*), she provides extrapolation testimony without having any information about the drinking history.

In various testimonies, Dr. Guale voluntarily testifies to or agrees with an attorney's representation of inaccurate information. Again, it is difficult to determine whether these are attributable to her imprecise communication or an actual lack of knowledge, as some issues are addressed only one time. Examples include:

- In *Cisneros*, agreeing that elimination is when we "go to the bathroom and throw up."
- In *Flores*, agreeing that cocaine route of administration dictates whether an individual experiences euphoria or dysphoria.

- In *Johnson-Cervera* and *Ronald Rodriguez*, testifying that side effects for alprazolam and tramadol, respectively, are present only when the drug is not used as prescribed.

**With the exception of the specific inaccuracies described above, the new transcripts are consistent with the concerns described in our May 23, 2017 response. Dr. Guale struggles to articulate her opinion and the scientific principles she used to formulate her opinion.**

Case Information on Additional Testimonies Reviewed						
Count	Last Name	First Name	Cause #	Case #	BAC (g/100mL)*	Year of Testimony
1	Allen	Gary	10-DCR-054820	ML2010-1351	0.19	2012
2	Arnold	Michele	1271759	J10-06188	0.19	2013
3	Belcik	Meredith	1985568	IFS14-12454	0.223±0.018	2015
4	Blackwood	Jennifer	1433419	Non-IFS	0.21	2016
5	Cisneros	Rodolfo	1934514	IFS13-13325	0.16±0.013	2014
6	Cozart	Lucas	1642313	J09-09853	N/A (drugs only)	2011
7	Dailing	Amanda	2025753	IFS15-07504	0.184±0.015	2016
8	Delacruz	Jose	2024734	IFS15-08648	0.109±0.009	2016
9	Flores	Jaime	1459301	IFS13-11740	0.1	2016
10	Gaddis	Edwin	1996292	IFS14-15391	N/A (drugs only)	2016
11	Gonzales	Rusbel	2075665	IFS16-02572	0.149±0.012	2016
12	Hitt	Lanis	1973657	IFS14-09330	N/A (drugs only)	2015
13	Hull	Leonard	1317022	J09-01514	0.19	2012
14	Imrecke	Daniel	1999133	IFS14-16245	0.136±0.011	2016
15	Johnson-Cervera	Errick	2047197	IFS15-17194	N/A (drugs only)	2016
16	Juanopulous	Alex John	1980687	IFS14-11329	0.095±0.008	2015
17	Lengua	Carlos	1302347	IFS11-03041	0.12	2012
18	Nguyen	Kim Chi	1979172	IFS14-10570	0.181±0.014	2015
19	Nguyen	Luc	1989534	IFS14-13486	0.144±0.012	2015
20	Pineda	Carlos	1971540	IFS14-08462	0.191±0.015	2015
21	Ramer	Renea	2027310	IFS15-07917	0.178±0.014	2016
22	Reynosa	Quincey	1472480	IFS15-09398	0.196±0.016	2016
23	Richardson	Akil	1965632	IFS14-06839	0.156±0.013	2015
24	Rodriguez	Ronald	1834521	IFS12-06340	0.16	2013
25	Rodriguez	Roy	2017073	IFS15-05103	0.13±0.011	2015
26	Sechrist	Matt	1998977	IFS14-16996	0.24±0.016	2015
27	Sitawisha	Nomathemba	1870305	IFS12-13209	0.21	2014
28	Ulloa	William	1489724	IFS15-16358	0.157±0.013	2016
29	Vu	Phuy Thanh	1932115	IFS13-12745	0.091±0.008	2015
30	White	Warren	1937165	IFS13-13855	0.145±0.012	2015
31	Wiggins	Gina	2018-58026	J10-07375	0.21	2012
32	Williams	Troy	1248664	ML2007-4218	0.1	2012

\*When uncertainty of measurement was reported, it was expressed using a 99.73% level of confidence.